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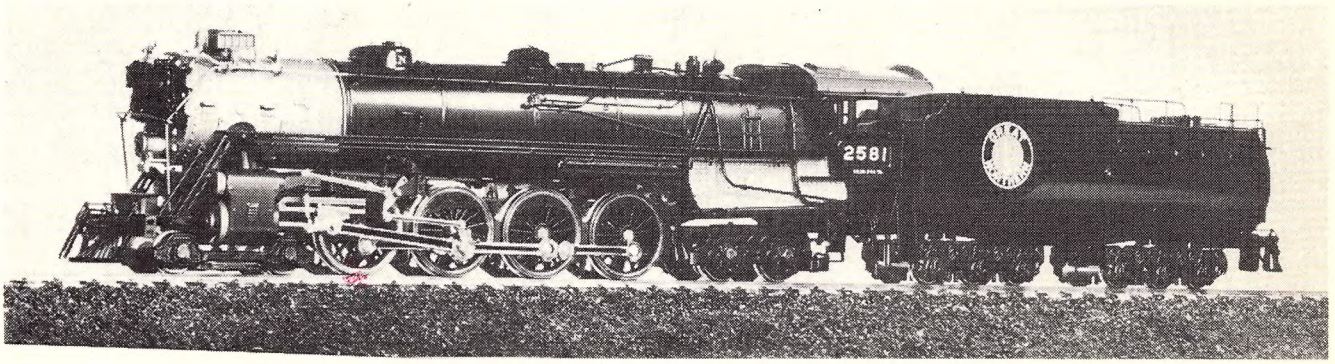
Australasian Model Railroad Magazine

MAY/JUNE 1972 VOL. 5 NO. 8 ISSUE 56

NEW FROM THE SHOPS OF— Tenshodo



G.N. 'S-2' 4-8-4 Loco & tender. Price: $210.95

NEW FROM THE SHOPS OF— NWSL

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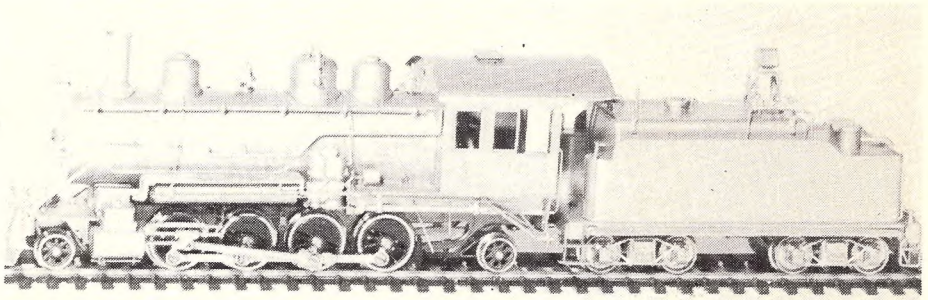
2-8-2 Loco & tender.

Price: $106.50



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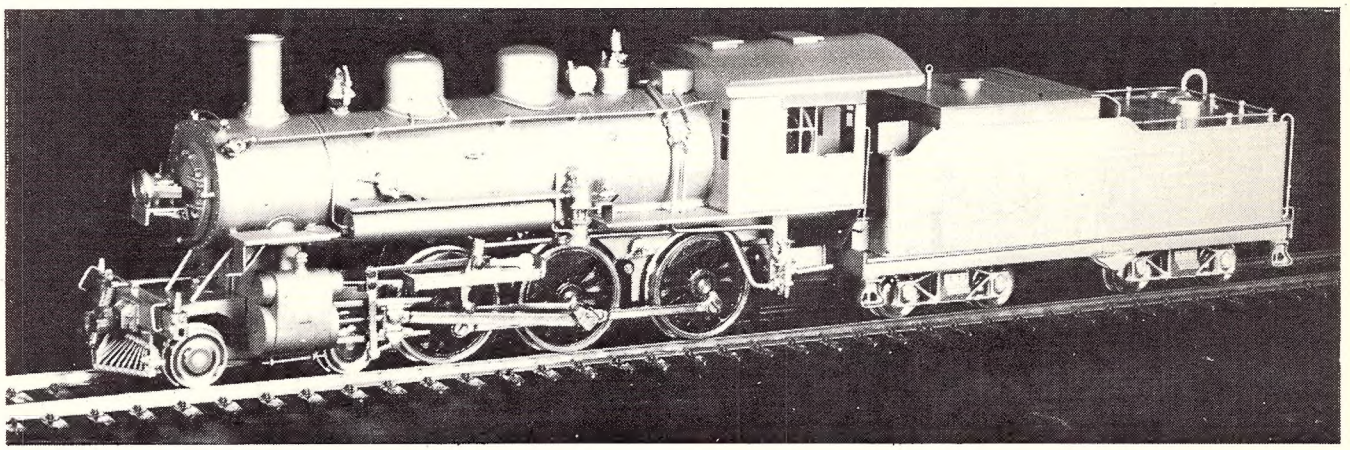
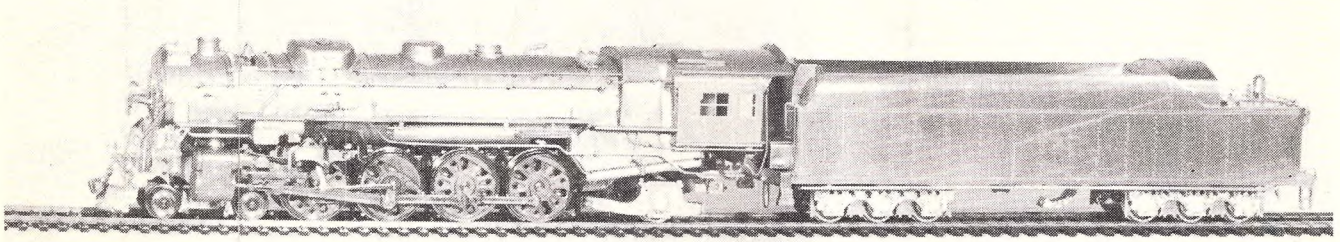


W.P. 4-6-0 Loco & tender. Price: $122.50

THE MODEL DOCKYARD PTY. LTD.

216-218 SWANSTON STREET, MELBOURNE. 3000 —————— 663-3505

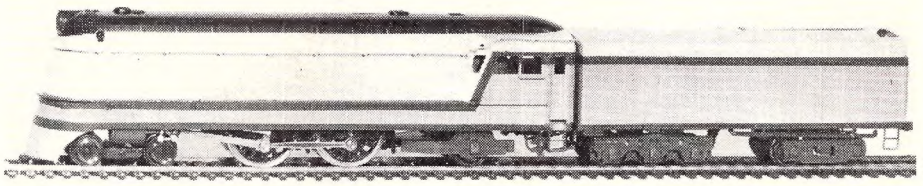
NEW IN HO SCALE ! . . .
N.Y.C. 'MOHAWK' 4-8-2 BY K.T.M.



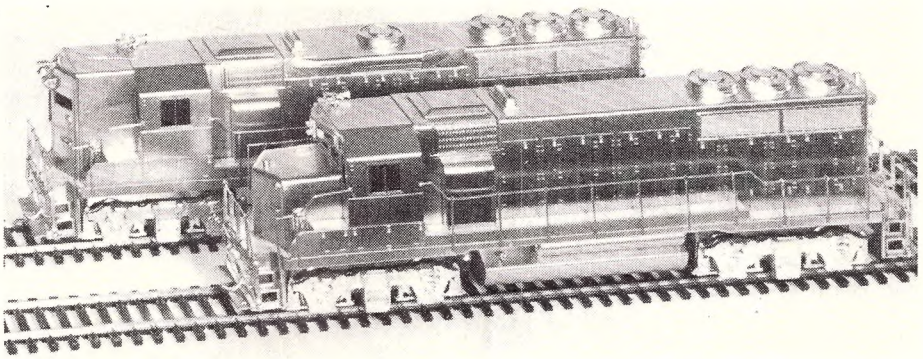
Again available after a long absence. Very limited stock only.

Price: $136.20

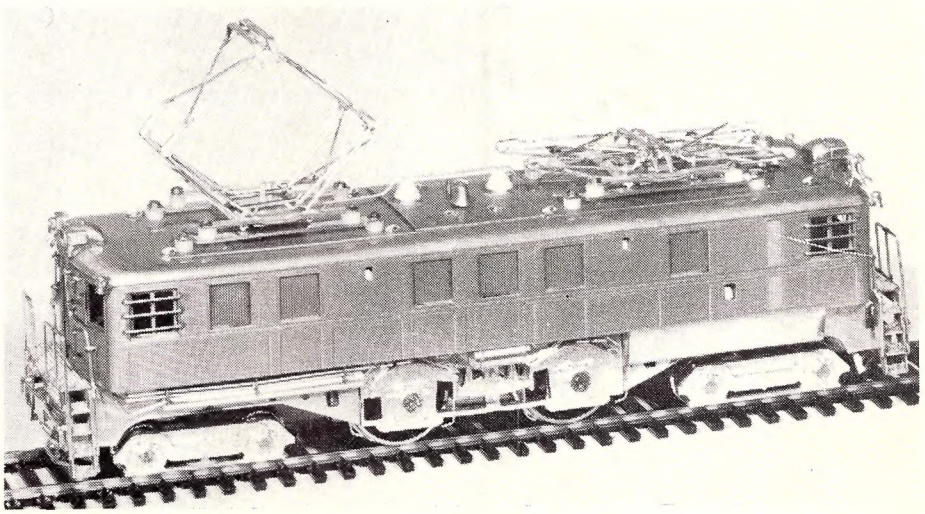
MILWAUKEE ROAD
'A' Class 4-4-2
by KUMATA . . .
'HIAWATHA'
Painted & finished.
Price: $120.00



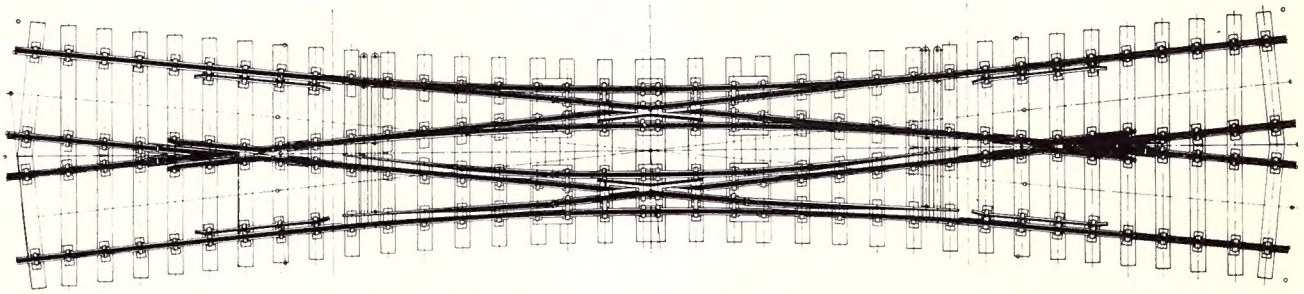
GP-40 Low & High Nose Diesels:
by KUMATA . . .
Price, either type: $60.80



P.R.R. 'O-1C' Class Electric Loco:
by KUMATA . . .
Price: $79.80



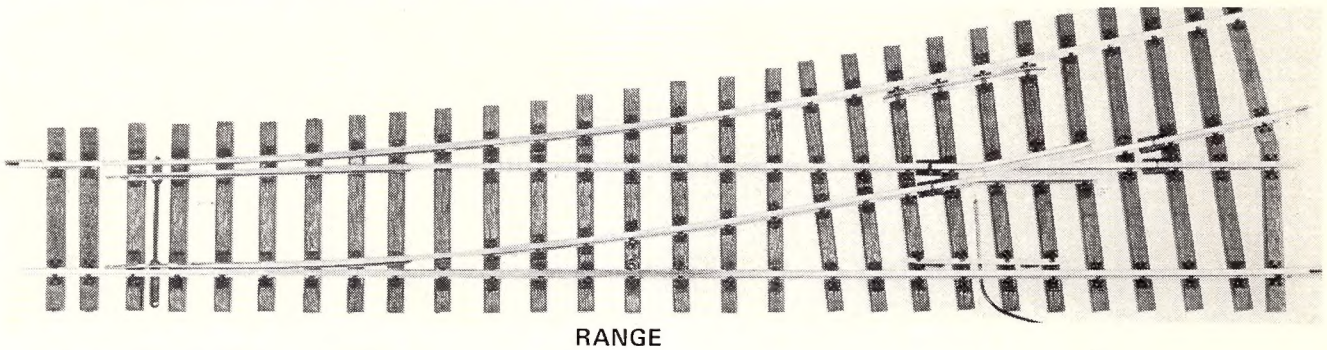
INTRODUCING 'HEGO' PRECISION TRACK — FOR O GAUGERS . . .



For some years now Model Dockyard have been investigating the possibility of offering O gauge flexible track and matching turnouts, to NRMA Standards and in particular, suitable for the running of brass models. Where rail loading is an extremely important factor, due to the massive size and weight of the majority of brass O scale locomotives.

An essential pre-requisite has been the need of a nickel silver, flat-bottom section, rail. Well anchored and supported. With turnouts, insulated for 2 rail operation and of sufficient radius to accommodate the largest of articulated locomotives.

'HEGO', of Europe, who are themselves offering the same range of brass O scale models, have succeeded in meeting these exacting specifications and accordingly, we now take pride in introducing this range of Precision Trackwork which is without equal in 1¼" gauge.



RANGE

Flexible Track, per metre length	$4.96 ea.
No 5 Right Hand Turnout, 1500 mm radius	24.80 ea.
No 5 Left Hand Turnout, 1500 mm radius	24.80 ea.
No 7½ Left Hand Turnout, 3000 mm radius	28.80 ea.
No 7½ Right Hand Turnout, 3000 mm radius	28.80 ea.
No 5 Double Slip, 1500 mm radius	42.15 ea.
Fishplates, per quantity of 10	.75 ea.

SPECIFICATIONS

RAIL SECTION: .140" High, approximating 100 lb. per yd. scale. Head, .064" wide. Base, .120" wide.

SLEEPER BASE: Polystyrene plastic, with wood grained finish. Scale 10" wide x 9 ft long. Spaced on 27" centres. Overall height of Rail and Tie Strip, .280".

COMING LATER

No 5 Diamond Crossing	
No 5 Single Slip, 1500 mm radius	
No 7½ Double Slip, 3000 mm radius	
Insulated Fishplates	

THE MODEL DOCKYARD PTY. LTD.

216-218 SWANSTON STREET, MELBOURNE. 3000 —————— **663-3505**

Australasian Model Railroad Magazine

The Official Journal of SCMRA in Australia; incorporating the Yardmaster, the Bulletin of the Sydney Model Railway Society.

MAY/JUNE 1972 VOL. 5 NO. 8 ISSUE 56

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AND A CAST OF THOUSANDS.	

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comment

Much has been said concerning the voluntary labour needed to produce this magazine, and the non-existent spare time of those involved in its production. However, these people are only a part of a larger team, and this issue we farewell Arthur Hunt who, for many years, has been in charge of circulation and distribution, not just once every two months, when the big mail-out occurs, but twice or three times every week, taking care of orders for back numbers, extra magazines and such like.

Circumstances, including an increasing load from his business activities and the fact that he took the job "temporarily" in 1964, have forced him to relinquish his part — a very important part — with the magazine and, much as we would like to keep him, we appreciate the necessity of his decision.

Thus the magazine staff is burdened further; by a drastic reshuffle we think that we can maintain the magazine at its present high standard, but more will depend on the maintenance of a steady flow of articles from you, the contributors, to assist us to this end.

Finally, I should like to apologize for the late appearance of the March/April issue. It was initially delayed by the absence of the staff at the Melbourne Exhibition, and was further delayed by a problem in printing. Consequently, all those people who have enquired about delayed fulfillment of orders must be answered, with our apologies, by the above facts.

on the cover

At the Model Railway Exhibition held at Hornsby Police Boys Club, there was an "N" Gauge display by the members of the 1st Wahroonga Scout Group. This layout was designed by myself and I was ably assisted by A. Thornton, B. Hoy (both Cubs) and Assistant Cubmaster A. Griffith.

The layout is on a 6' x3' board and consists of two complete circles, one inner loop, two goods sidings plus extra sidings to the coal mine and loco shed. On the electrical side each circle and loop is wired in sections which means that four trains can be run at once. All buildings are wired for electric lighting, points (mixture of Lima and Peco) and uncouplers are electric. The two colour electric signals add extra interest as they work in conjunction with the points, and also isolate the track when on red.

As far as the exhibition is concerned, it was a great success, and the Police Boys Club now has an extra $700.00 in the bank. The most pleasing part of the show was the keen interest shown by young people, not only as spectators, but as exhibitors, and while we have school boys such as Andrew Page and Malcolm Greeves who between them had a 16' x 4' "N" Gauge layout this wonderful hobby will get bigger and better every year.

George Hayes,
Publicity Officer,
1st Wahroonga Scout Group.

Photo by Ralph Cooke — Hornsby.

reviews

Importers, manufacturers and retailers! We offer you the use of our review service. Send the item to be reviewed, together with a brief description telling us its make, catalogue no. and suggested retail price to SCR Publications, P.O. Box 204, Kings Cross, 2011.

General Electric U28C, manufacturerd by Athearn in HO scale. Our sample supplied by Hobbyco Pty Ltd, 561 George Street, Sydney. Price $25.95.

This loco is the current General Electric 12 wheel diesel locomotive produced for United States railroads. It is produced in 2800, 3000, and 3300 hp versions; the different units being identical externally. A feature of these locos is the non-equalised all rubber sprung bogie. This is mounted on rubber blocks, not a centre pivot. The locos were first built in 1966 and are used for heavy mainline work.

The model closely follows plans and photos. The exact bell and horn position depends on the practice of individual railroads. Union Pacific place it down with the air tank on the short hood end of the loco. The bogies, for reasons of cost and to ride rough track, are rigid and mounted on a centre pivot.

The frame is a zamac casting with all other parts clipped to it. The body is a plastic casting with a removeable cab. The purchaser has to fit the headlight lenses, number box glasses, horns, bell and hand rails. The wire hand rails are rather poor quality compared to the body casting. Ours were unplated and should be painted or matt varnished to blend in better with the loco.

The loco boasts 12 wheel drive. The Athearn motor is rubber mounted to the frame. The current pickup is on all wheels. The motor drives each bogie via a universal shaft to which a worm is connected. This drives a large gear to which the wheels are coupled by a simple gear train. The wheels are sintered iron to NRMA S4 and RP25. The loco comes with hook horn couplers fitted; these can be replaced easily by couplers of your choice if required. The instruction sheet is a single exploded diagram which lists all parts and shows their assembly clearly.

The loco can pull twenty cars on level track with 23" radius curves. The minimum speed without pulse power was 15 – 20 mph; the maximum speed was around 120 mph. The drive growls at all speeds, but this should disappear after running in. The minimum operating curve radius is 15".

This is a good loco for medium to large layouts operating modern equipment. It comes in a variety of colour schemes. Our sample was lettered for Penn Central. It is a welcome change from General Motors diesels.

Length over couplers	67'3" (HO scale)
Wheelbase	54'6" (HO scale)
Price	$25.95 (full scale)

R.J.T.

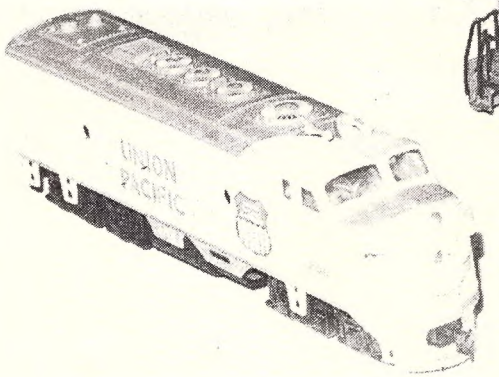
Bachmann HO scale F9 "A" unit ($9.00) and EMD GP40 ($9.45) diesel locomotives. Both models from J. Searle & Son, 315 Pitt Street, Sydney.

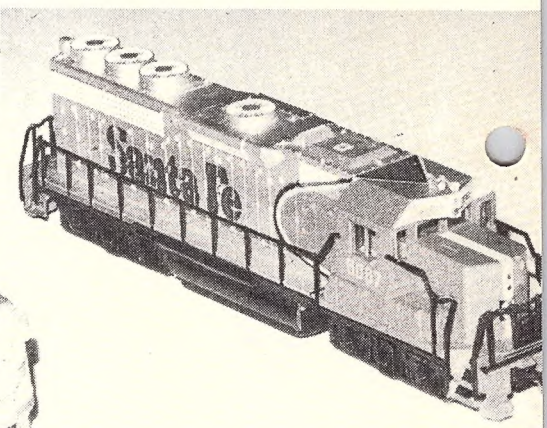
Both these models are housed in attractively printed cardboard display boxes with a large view window. The models are further surrounded by a protective piece of light blue expanded foam styrene.

There is a wealth of body detail and, while I cannot confirm or abrogate the accuracy of minute detail, there is none which appears inconsistent with general U.S. prototype, although at this price it is unlikely that detail specific to any one road would have been added to those models painted for that road. Paint detail is of a high standard on both models, being the manufacturer's usual silk screening. The bogie sideframes differ with locomotives, and is equally well-detailed on both. Another noteworthy detail is the roof radiator fan covers, which, unlike many models, are actually open.

Removing the snap-on body reveals an almost solid metal locomotive with the motor nestled in the middle. The drive is transmitted to the wheels through a universal to a worm gear, which in turn drives a gear train which is mounted on the bogie. All wheels are powered on both models. The system for mounting the bogie is taken straight from N gauge practice and scaled up; the swivelling is achieved with a large degree of "slop" in the worm and gear, while the axle of the worm-driven gear is extended through slots in the chassis to hold the bogie in the locomotive.

In spite of this crude-sounding arrangement, the locos each hauled 17 bogie wagons up a 1 in 48 grade (after appropriate running-in), and this performance would be bettered if one were to use the Bachmann rolling stock, which is underweight by SCMRA standards. Wheels conform within





Bachmann F-9 (left) GP-40 (right)

Construction Quality Toys — Trees

Construction Quality Toys, Set 2, Tree Models

This set consists of ten assorted trees. One apple tree, with fruit, one cedar tree, two palms, two poplars, two spruce and two Douglas firs. The trees are in pieces to be assembled by the purchaser. The assembly instructions are printed around the sides of the box.

Each tree consists of a base, a trunk and foliage moulded in flexible polythene. The colours are authentic and the plastic is shiny but a coat of flat varnish will kill the gloss.

I assembled all ten in ten minutes. The trees are a suitable height for small layouts.

Maximum heights of trees is 13 cm (cedar)

Scales – all except N.

Price 98 cents per set.

R.J.T.

acceptable tolerances to SCMRA standards. The motor is a rugged 5-pole type, and the metal chassis is used advantageously to concentrate its magnetic field, giving excellent performance with little or no heating. The models are, however, very noisy, and are incapable of high speeds, which may or may not be a good thing; the F9 topped at about 85 scale m.p.h., while the GP40 went a little better, attaining about 97 scale m.p.h.

Following is a comparative list of specifications for the two locomotives.

	F9	GP40
Length over couplers		
couplers	186 mm	218 mm
Overall height	54 mm	54 mm
Overall width	35 mm	37 mm
Wheel diameter	12.0 mm	12.0 mm
Wheel back-to-back	14.5 mm	14.5 mm
Weight	340 g	397 g
Body construction	Plastic Moulding	
Drive	See text; all wheels driven	
Couplers	X2F	X2F
Livery	U.P.	S.F.

In conclusion, these locomotives are mass-produced in Hong Kong essentially for the U.S. domestic market, and consequently no Australian manufacturer could hope to compete with them. Nevertheless, they are excellent value — a good, rugged loco ready-to-run for about the same on-the-rails price as two rolling stock kits. An on-the-track item rather than an on-the-shelf one.

R.K.W.

British Railways, Class 9F, No. 92220, "Evening Star", HO Scale, made by Rovex Triang, No. R861. Lent for review by Hobbyco Pty Ltd.

In 1950 British Railways introduced "Britannia", the first standard design British Railways steam locomotive. This was the first of a whole series of locomotives for all duties from shunting to heavy goods engines. In 1954 the heavy goods engine Class 9F was introduced, the last and largest of the standard designs. This modern 2-10-0 with wide firebox, has a boiler pressure and large wheels, was to be the last British steamer. In 1960 steam loco production was stopped, the last of 251 9F's was No. 92220, all the class were painted plain black, but this loco was special, it had passenger loco colours and was named. A high point of its career was to haul the Flying Scotsman at 90 mph. "Evening Star" is now preserved in the British Rail Transport Museum.

The manufacturer has produced a model to match its prototype. It has the class that marks an outstanding model. The first thing that I noticed was the finish. The loco shines like a new car, as all good English locos did.

The locomotive itself is a dummy. It has a plastic body with all detail moulded on including the bolts that fasten on the sheetings. The frame is diecast with the drivers running in brass bearings in slots in the base. The current pick-up is via bronze wipers onto the backs of four drivers per side. This also centres the drivers in the frame. The combination of side play and jointed side-rods enables 380 mm radius curves to be taken with ease. The pony truck is sprung and it carries the front steps and coupler on an extension piece.

The valve gear is complete. There are few things that compare with a ten-coupled loco with full valve gear cruising by at low speed.

The cab interior, tender front and boiler back-head are fully detailed.

The tender is the heart of this loco. Under the innocent looking exterior lurks the works. A large ring-field motor, two stage spur reduction train, six rubber tyred driving wheels. The whole layout is neat, quiet and powerful.

The loco was tested on a kidney shaped layout with 575 mm radius curves with easement on the curve ends. It pulled twenty double bogie cars with no problems. So that it should be able to pull 40 British freight cars easily. The loco on pulse power slowed to a 5 mph speed and on full power running light easily topped 100 mph.

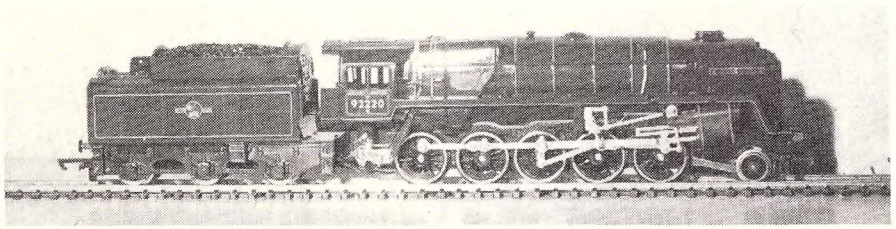
The manufacturer has made a great advance with this model. It will run on NRMA standard track and points. The wheels are actually to BRMSB "00" scale (1:76) standard.

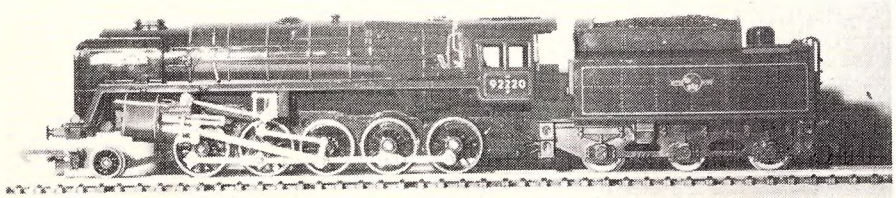
This is a very good model. It is a credit to the manufacturer. I hope it sells well — it deserves to. It would be sad if this loco is Triang's last as it was for British Rail

Builder:	Rovex Triang
Body Scale:	1:76
Track Gauge:	16.5 mm
Length:	267 mm
Price:	$33.95

R.J.T.

Triang 2-10-0 'Evening Star'





REDFORD RIVET EMBOSSING TOOL. Manufactured by: Bryan Scale Models, 74 Midland Road, Bedford. U.K.

The tool available with either 00/H0 or 7mm punch and die set, is supplied with a well detailed instruction sheet and comprises a cast steel body, a spring loaded punch (tempered steel) with adjustable spacing edge and an adjustable guide. Rivets are made by clamping the body in a vice and striking the punch into the material with a hammer or more preferably a spring loaded centre punch to produce a more even rivet depth.

The die can be rotated to vary the spacing of the rivets as can the guide be adjusted to vary the length of rivets from edge of material. (A line of rivets can be punched 0.75 mm from edge of material). The tool allows a speedy work (10 mm) to punch a side track for Z20 class). Rivet counters would judge these H0/00 rivets too big but then again scale rivets are invisible under one coat of paint. The tool would be of great assistance for the average scratch builder while a useful 'rivet counter' could grind punch and die to the accurate size. The problem with the tool is obtaining same in Australia but the manufacturer will supply H0/00 version for $6.95 posted surface mail. (7 mm unit on application.)

R.A.G.

eda Power Throttle. Our sample supplied by Austral Modelcraft, 101 Laura St, Ekibin, Qld. Price $22.98

This unit presents somewhat of an enigma when the box is opened. The accompanying literature describes it as working off 17V AC with a 3A capacity, but the printing on the unit itself proclaims 15V at 2A to be the ratings; more of this later.

The unit itself is an attractive aluminium and vinyl-clad tinplate box, 5½" x 4" x 2", housing the electronic components. It features a sliding control like the type currently enjoying a vogue in hi-fi equipment, rather than the more conventional (in this application) rotary control. The outside controls, terminals, etc. are clearly labelled, on a well laid-out cover which, together with the 2" thickness, make the whole unit comfortable for one handed (left hand) operation, something virtually impossible with a rotary control mechanism. However, the location of the terminals would have been more suited to comfort for hand held operation were they mounted on either end. Panel mounted operation could handle either. Even so, the design evinces a good deal of thought.

In use, I found that the terminals are too small to grip heavy wire properly; this could be overcome by fitting tags to your wires or fitting larger terminal nuts. Once this

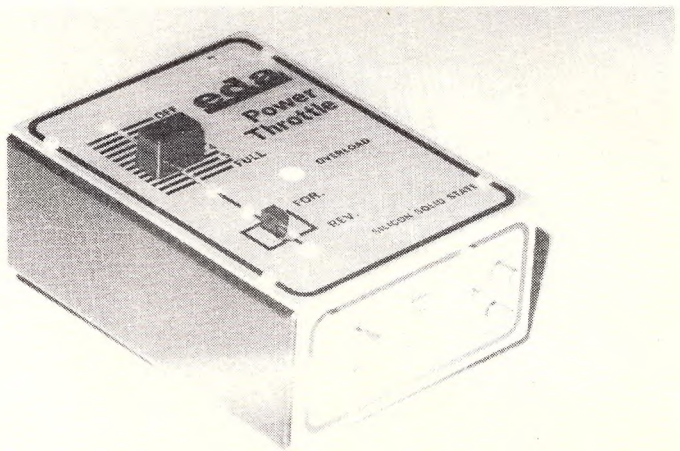
problem had been overcome, there was the problem of whether to use 15 or 17 volts, and since caution is rarely ill-advised, I first tried it on 15V. With this supply there was no trouble double-heading any two (HO) locos around the layout, which includes 10 yards of 1 in 48 grade. The double headers slowed a bit towards the top of the grade. Switching to 17V gave just that extra boost to go up the hill or to run triple-headers. It seems that it would also be suitable for those O gaugers who use 12V DC. I was not able to check the current drawn, but the operations I carried out were well within its capabilities.

In addition, its slow-speed response is ideal for shunting if you don't mind a slow, smooth start for each part of each manoeuvre. It is sensitive to load variation, and does quite a good job of compensating for them. The power transistor ran quite warm after about 40 minutes' hard work, but this is to be expected.

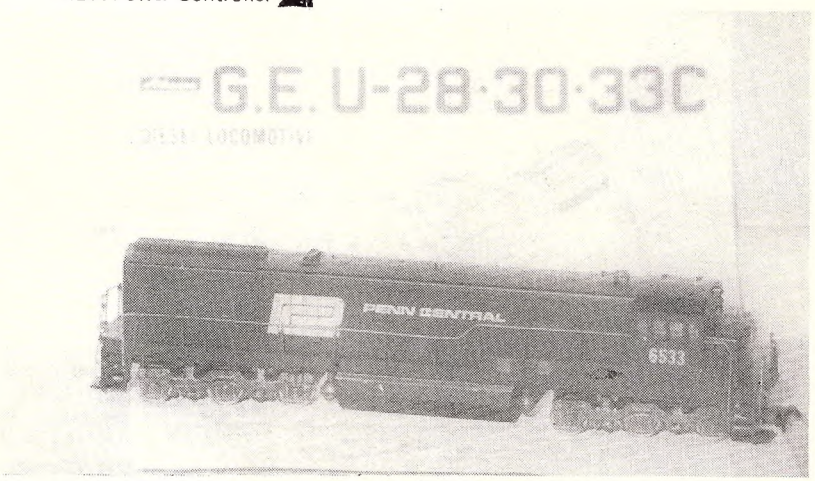
Overload protection is by means of a 36W light bulb, with a bezel in the case which it illuminates.

This is a fairly expensive unit but it is ruggedly built and should give many years of service. There is no guarantee with it, but if it should fail it would be easily and swiftly repaired, since it employs only locally available standard parts.

R.K.W.



EDA Power Controller



Scraps

As from next issue the recommended retail price of the A.M.R.M. will rise to 35cents. we regret this increase but it was forced on us by an increase in the cost of printing the magazine. We have strained to absorb many increases, both postal and printing, but inflation has caught up at last. You might note that the last price increase was December 1965.

****

We have heard of the recent death of Ivan Ive, who was one of the original staff of A.M.R.M. in 1963. We offer our condolences to his family, friends, and associates.

****

Figure 5 of Bob Gallager's article 'A Prototypical Conversion' was accidentally ommitted from last issue. It is published on this page.

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The series '70 Years of Meccano' is not appearing in this issue. It will be concluded in the next.

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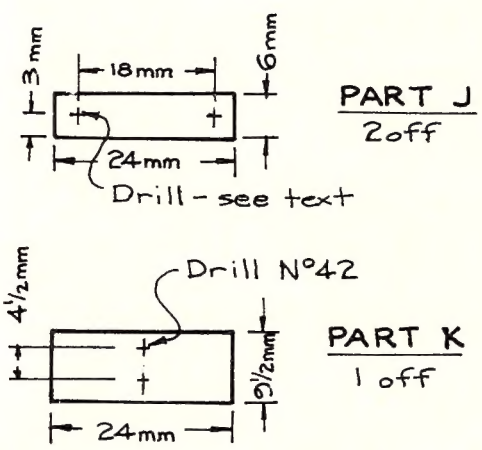


FIG. 5

A PROTOTYPICAL CONVERSION PART 2

R. A. GALLAGER

RIVETS

Rivetting differentiates an ordinary model from a very good model. Bad rivetting can destroy an otherwise good model. The rivets on this model were made using a Bedford Rivetting Tool (reviewed this issue) and although they are somewhat oversize the results are shown to let readers judge for themselves.

THE BODY

Referring to Fig 6, using 0.015" brass sheet, removing unwanted material with piercing saw and files, fabricate the base plate, rivet and bend splasher sides onwards. Solder splasher top (0.010" thick x 4 mm x 18 mm) in place. Solder section of brass 12 mm x 12 mm twice thickness of baseplate to the underside rear section of base plate. This acts as a body mount and keeps the base plate even on frames.

Place the base centrally on chassis, the front edges level and mark positions for holding screws from frames to base. Drill No. 55 and Top 10 BA and attach together with 10BA round bad screws. Using Fig 7 as reference fabricate and rivet, side tracks cab sides, bunker and cab plate (rear). Drill holes before bending parts in a smooth jaw vice. The Bunker back is bent to suit the bunker sides. Construct side tanks in following steps: add back to preformed front: insert top and solder in position noting that there is a 0.5 mm lip on top of the side tanks. e.g. the top is 0.5 mm down front top edge of sides.

An easy method of assembly is to place side tanks, top down, on plate glass and place a 0.5 mm shim of card between glass and tank top and solder in position.

Referring to main plan, add side tanks, rear tanks, and bunker to base plate. Keep the base plate flat on plate glass when attaching parts. The rear tank top is recessed similarly to side tanks.

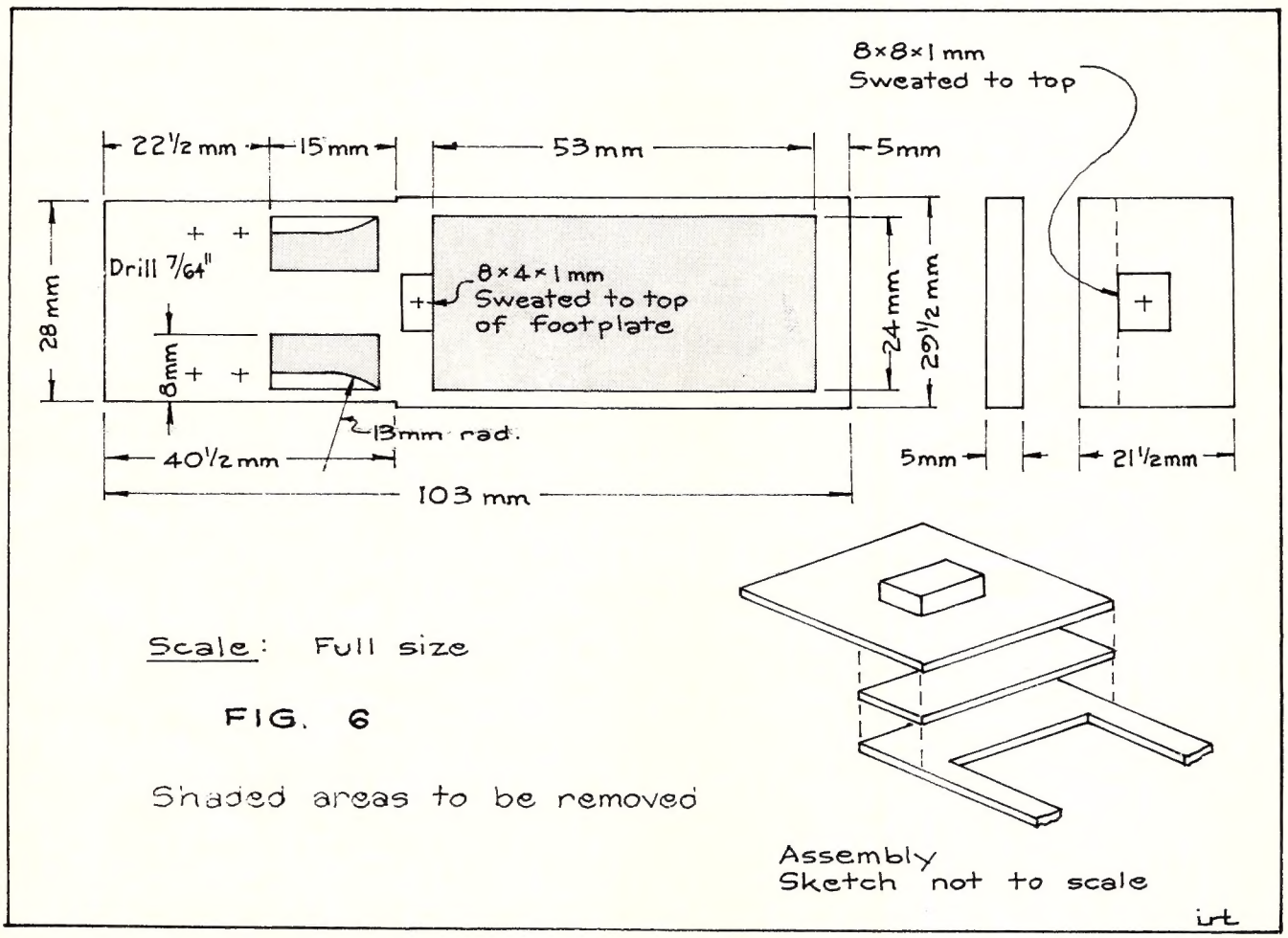
BOILER

Working on one half of the boiler casting at a time and referring to Fig 7 remove unwanted material using piercing saw and rough files. Double check for clearance by placing each boiler section in position on assembled base and chassis. Ensure all moving and electrical parts have good clearance. Glue boiler together inserting a section of card (1 mm thick) to give the boiler the correct appearance. Add cab front to boiler and remove unwanted material referring to plan position boiler removing boiler detail that disallows neat placement of boiler. With a file remove nick on inside of tank top edges to allow cab to sit on tank top. The photograph shows the boilder and base plate before being joined together.

To be continued next issue.

APOLOGY

We apologise to the readers and to Bob Gallagher and Ian Thorpe for the appearance of the 20 class plan in an incorrect scale in the last issue. The fault was at the printers and was completely beyond our control.



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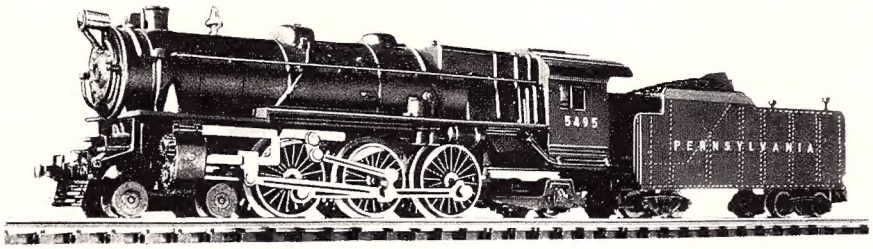
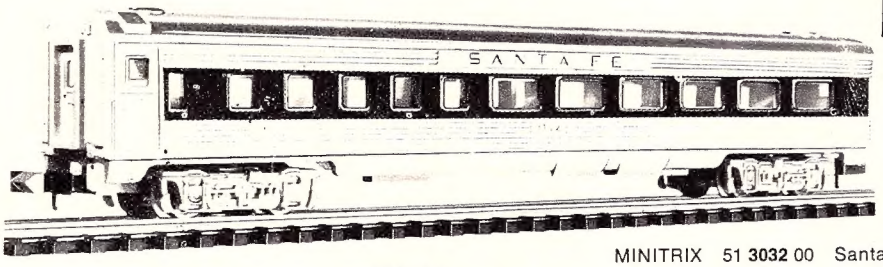


LOCOS

MINITRIX **51 2001** 00

PASSENGER CARS

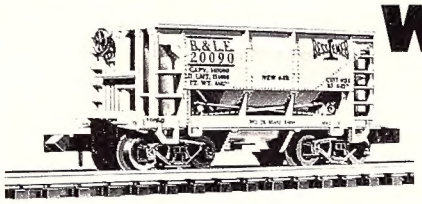


MINITRIX 51 **3032** 00 Santa Fé

Cleaning brush for loco wheels

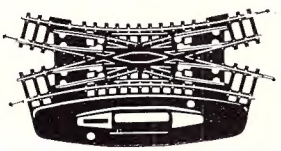
MINITRIX 56 **6523** 00

Wagons



MINITRIX 51 **3222** 00

Double Slip – remote control



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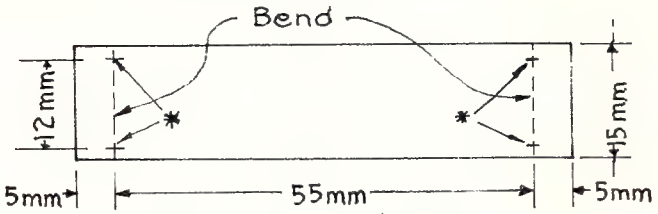
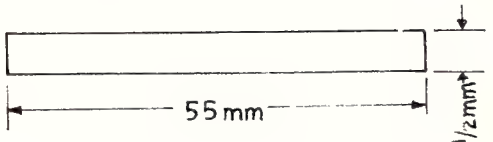
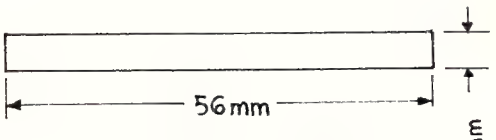
SIDE TANKS



Tank sides – 2 off

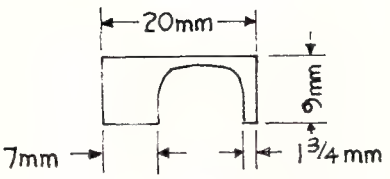


Tank tops – 2off

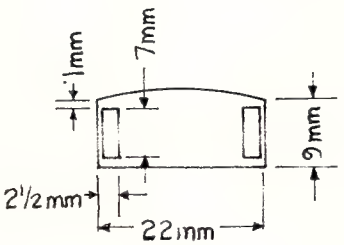


Tank backs – 2off

CAB



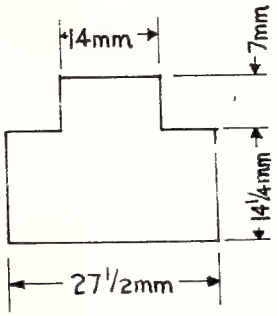
Cab sides 2off



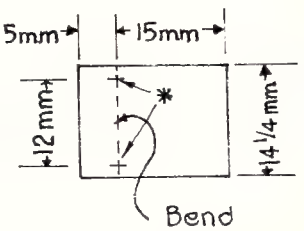
Rear spectacle plate
1 off

* Handrail holes
Drill № 68

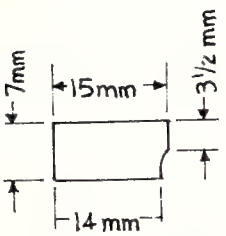
BUNKER



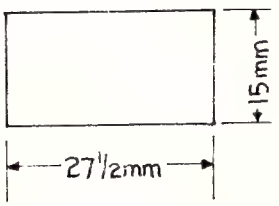
Back – 1 off



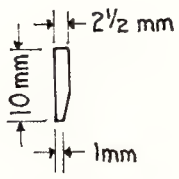
Tank – 1off



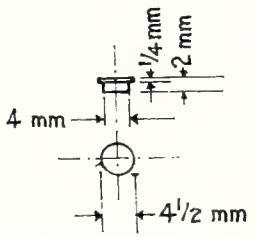
Sides – 2off



Top – 1 off



Guard
4 off



Water Filler
4 off

Material is 28 gauge (0·018) brass except cab sides which are 1/16" brass

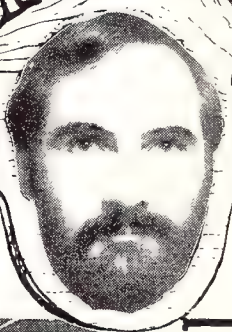
Scale: Full size

FIG. 7

ROSTER &

NOTICE BOARD

by Grahame Dodd



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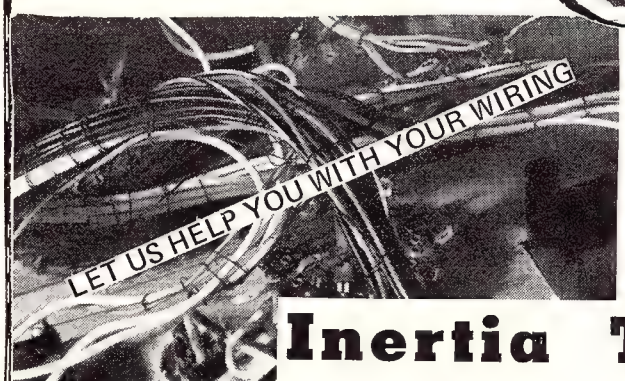
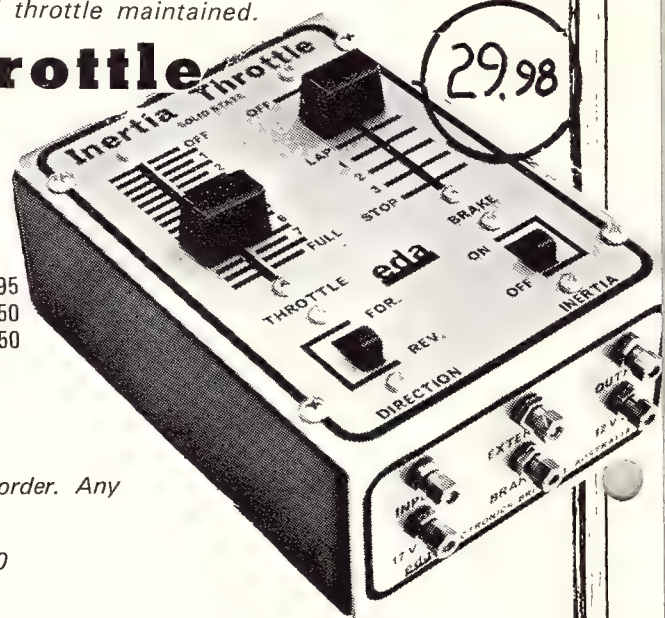


** The external braking is the feature which scale railway modellers have been waiting for. Automatically, when the signal ahead is red, a pre-determined amount of brake can be applied externally for a most realistic slow-down on approach to signals. Upon all-clear gradual acceleration takes over again. However, if manual slowing down to the signals is preferred, the external brake can be quickly disconnected and normal throttle maintained.*

Inertia Throttle

29.98



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WHERE IS WINGROVE?

JACK McLEAN

Have you ever wondered how a railway organises its trains and what working time tables and train notices etc. really do. Here Jack McLean explains train movements from Adelaide station and how he adapted them to his layout. This article will be continued next issue.

It is not easy to answer the often-asked question, "Where is Wingrove?" The asker doesn't have to show astonishingly acute perception to notice that somehow justify a four-car suburban British Railways set (Hornby) being hauled by something that looks like a VR "B" class diesel (Triang).

I could give the answer in three parts. Geographically, I imagine that it is a British colony or ex-colony in Asia. This accounts for all the second-hand British Railways rolling stock we have. Topographically, it might be Stranraer Harbour where the passenger terminal is built on a very narrow base and where connections are made by boat to somewhere we can't see. Operationally, though, I always think of it as a scaled-down Adelaide.

I was in Adelaide again this year, and thought of Wordsworth's sonnet in which he says, among other things, "Dull would he be who could pass by a sight so touching in its majesty." Wordsworth's sonnet was a tribute to Westminster Bridge in 1802 while my use of his works was a tribute to Morphett Street which I consider to be the best station-watching place in Australia. Add to this fact that the train movements into and out of Adelaide are extremely well documented and that I had a copy of an up-to-date "Diagram of Platform Workins", and may-be you can understand my enthusiasm.

But does the average passenger know this?

You have purchased a copy of the public time table and through the index, found that your destination-Islington Works-is in Table 4, and, in Table 4, you find that there is a train leaving Adelaide for the Works at 7.21. If you have not been able to afford the 10c for your own time table, the same information can be gained from a placard (In other states, it seems to be called the "Wall Sheet").

You buy your ticket and walk down the ramp to where the Man-in-Blue has already changed the pieces of perforated tin and you read the spots of light through the sheets and they show that:—

TRAIN DEPARTURES

include one at ...	7.21
from	Platform No. 12
for	ISLINGTON WORKS stopping at OVINGHAM ISLINGTON ISLINGTON WORKS

You walk towards the platform and you wonder vaguely how the Man-in-blue knew; he almost certainly didn't run down and have a look. At the gate at the end of Platform 12, you show your ticket to the Porter and he says, "Islington Works train-Platform to your left, please", and you will see that he has already hung up a wooden destination sign from the cantilever verandah. It is obvious that he isn't the Porter whom I met some time back, who was so eager to crack his little joke about the ticket, ("Got to be like these mornings, sir, has to have a little nip in it"), that he directed me to the wrong train! You settle yourself in the third car. Did you spare a moment to wonder how the yard shunter knew how many cars there would be?

A trifle later, a diesel engine is seen, (but you didn't notice the class or wonder whether it was appropriate for the load) and it swings out past the Station Cabin and comes to a stand just short of the cars in Platform No. 12.

The fireman doesn't seem surprised that the cars are there, and the shunter has been expecting the engine and greets the fireman by name. There's the guard, complete with his irridescent green flag which he waves while blowing his whistle and he glances at his watch and writes a time in his book as the train leaves.

Do you mean to say that you, the passenger, spared not a thought for the colossal amount of planning and co-operation and paper-work that went towards getting that properly equipped train out on time? Shame!

It just didn't happen I assure you and the fact that I have some idea of just what did go on, and have used some of this knowledge in organizing the Wingrove line, caused this article to get written.

For many of the stations along the line, including Mount Gambier, of which more later, the working time table will suffice. In addition to the information which you have found in the public time table, the working time table may show the porter and the signalman, (if the latter is on duty), that a train stops or does not stop and what time. The signalman at North Adelaide and the porter there will want to know, and can find in the working time table, that it will go through about 7.25. The signalman at Islington, however, will also find out that it will arrive at 7.34 and that the cars are to be stabled, and the engine is to work no. 146. The cars for no. 146 are those which arrived from Mitcham at 7.31, the engine of which has gone to Dry Creek to work a goods train.

Another page of the working time table tells us that no. 146 is due to leave Islington at 7.44 and to arrive at Adelaide at 7.59. The goods trains are shown in a separate book and from this we may note that there is a goods train leaving Mile End Goods at 8.30 and arriving at Port Stanvac at 9.20.

Islington Works has three trains a day and two platforms in which to put them. Adelaide Station has 13 platforms and I have not attempted to count the trains in and out of that station. Obviously Adelaide will need something more than the working time table, — the platform diagram. My train watching on the Morphett Street bridge was, in fact, in the middle of the day when the Grange motor arrived in Platform 6 and retraced its steps at 1.50 p.m.

Unfortunately, I was not there when the 7.21 a.m. Islington Works train left. Nor did I see the 7.30 a.m. arrival Blue Lake, which had come 305 miles across plain and mountain. But I could console myself that I had a current copy of the Platform Diagram and that from its wealth of detail, I could picture most of what should have happened.

I have extracted from the platform Diagram, the information relevant only to the three platforms, No. 1, No. 11 and No. 12, which is enough to show the variety of movement at the station, (and not enough, I hope, to be confusing). It will be seen that the left hand columns pertain to departures and the centre and right hand columns to departures. Overnight (meaning before the first train leaves for Outer Harbour at 4.55 a.m.). I would find No. 1 platform empty, while in No. 11, the yard pilot should have shunted the cars for the 7.11 Penfield train. Platform 12 similarly should be holding the cars for the 7121 Islington Works train.

The first movement in these platforms is the arrival of the Bridgewater train at 6.14. This is a 400 class car which goes out again at 6.35 a.m. for Marion, but reference to the departure column shows that a fresh set CTC (car-trailer-car) of the 300 class will leave the depot at 6.05 and be in the platform at 6.09 and the 6.14 arrival Bridgewater will attach at the yard end. (The instructions show in reverse that the Bridgewater attaches to the CTC at the Adelaide end.) Attached they make a 4-car set for the 6.35 Marino. Then the 6.43 arrival from Bridgewater will be seen in Platform 1 but it waits there until 7.10. In the meantime, an empty CTC300 arrives at 6.51 and leaves again as the 7.00 a.m. Belair. The Platform is once again free for the 6.43 Bridgewater car to leave for Mitcham at 7.10.

Across in No. 11 Platform, the diesel has arrived (the letters FTFE signify that it is a fresh train, (which we already know) and also that it is a fresh diesel —). After coupling to the cars it will depart at 7.11 for Penfield. Platform 11 is now free for the arrival of the North Gawler at 7.25, four railcars, 1/400 and a CTC300, which will leave again at 7.37 for Northfield.

Across the island platform the diesel for the 7.21 Islington Works has arrived from Mile End and after coupling to the cars (as seen by our observers, earlier in this description), has departed with its passengers, leaving the platform free for the

Blue Lake to arrive from Mount Gambier at 7.30. The Blue Lake unlike the rail cars, has no return service to perform (at least not until late tonight), and so after a reasonable but unspecified time to unload van goods and mail, a yard engine will "PULL" the van and passenger cars out to the Car Yard, leaving the engine free to go to the Mile End Diesel Depot, pushing to Mile End Goods, (on Tuesdays only) the vans from the front of the train.

The first movement in these platforms is the arrival of the Bridgewater train at 6.14. This is a 400 class car which goes out again at 6.35 for Marino, but reference to the departure column shows that a fresh set CTC (car-trailer-car) of the 300 class will leave the depot at 6.05 and be in the platform at 6.09 and the 6.14 arrival Bridgewater will attach at the yard end.

(The instructions show in reverse that the Bridgewater attaches to the CTC300 arrives at 6.51 and leaves again as the 7.00 a.m. Belair.)

The Islington Works train arriving at 7.59 in platform 11 is not the same set of cars as those which left Adelaide at 7.21, but it is the same engine. This already has been noted from the working timetable. A yard engine will 'pull' these cars out into the car yard, but the engine has other duties and instead of going back to the depot as the Mount Gambier engine did, it goes to the Mile End Goods Yard to run the goods train to Port Stanvac at 8.30. The day service to Mount Gambier is not a train, but a three car set of Blue Birds, 250 and 100 class railcars. Those for the 8.00 a.m. Mount Gambier run leave the depot at 7.17 and arrive at No. 1 platform at 7.21, just as the Islington works train is leaving platform No. 12. 'Set back after 7.10 a.m.' indicates that the platform will not be clear for these Blue Birds until the Mitcham 400 rail car leaves at that time. Passengers take their seats and van goods and mail is loaded into the baggage compartments and soon the Blue Birds will leave on their long journey across mountain and plain to the southeast corner of the state from which the 'Blue Lake' has just arrived.

These are the instructions for a normal day, but as everyone knows, particularly the time table compiler, someone is always altering something. No. 11 platform may be out of use because they are replacing a rail, and the Penfield and Islington trains will have to use the same platforms. In daily amendments to the platform diagram, we may see something like this:—

197 7.11 PENFIELD FTFD 12
Back O'night with
7.21 Isl Wks
and further down the page:
241 7.21 ISL WKS FTFD 12
Back O'night

Perhaps the 8.00 a.m. Mount Gambier will run as a train. In addition to the Special Train Notice detailing the altered times through the stations as a result of the slower speed, the platform diagram will have to be altered. Probably as follows:

281 8.00 MOUNT GAMBIER FTFD 10
Brake back O'night
Cars back after 7.04

The change from Platform 1 to Platform 10 is because the latter is nearer the Car Yard, and this platform is not free until the Gawler CTC has left at 7.04

The alteration will also originate a light engine from Mile End Diesel Depot which I will describe later.

ENGINE ROSTERS

A lot of my material is dated 1953, when most of the suburban power was steam. Apart from appearance, steam was different in fact that the steam engines often came out from the Mile End Depot coupled and they uncoupled near the Adelaide signal box. In 1960 a steam engine worked the 7.08 Penfield which was the equivalent of today's 7.11. The engine working was set out on a roneod sheet, part of which is shown below. Diesel rosters are similarly set out.

NO. 10 SET (7.08 PENFIELD)
BOOK ON MILE END 5.40 a.m.

a.m.		a.m.
Adel 6.50	LE	6.42 Mile End

No 1 engine ex Loco uncouple signal 133.

Adel 7.07	233	7.50 Pen No. 3

via Balloon Loop to Marshalling Yard
Stable Cars and Work:
ME Gds 214 LE 8.42 Marsh Yd
Work 373 (9.30 a.m.) Mitch and
Brighton Goods as directed by Control.

From this you can see how the engine left Mile End at 6.42 as the first of two light engines, and uncoupled at a signal in the Adelaide Station Yard. It then backed to the Platform, coupled to the cars and took them out to Penfield. After storing the cars there, the engine ran back light to Mile End for further duties on goods train on the Mitcham and Brighton lines.

The engine of the Islington Works train at this time was also the second of two and after returning to Adelaide performed similar goods duties, (the Port Stanvac Line then not having been opened).

The replacement of the 8.00 a.m. Mount Gambier by a train would necessitate an additional light engine working which might be shown on the Platform Diagram Daily Amendment as if it was an additional passenger arrival.

7.36 LE via Nth ex Wye work 8.00
Mt Gambier FT10

This instruction would tell the Diesel Depot people what time the Diesel had to go out, the signalman at Mile End Junction would know what it was for, the signalman at Wye Cabin would know that he had to cross it over to the northernmost of the four pairs of double lines, and when it arrived at Adelaide, the signalman there would be able to direct it straight into Platform 10, where the "fresh train" would be waiting.

RAIL CAR ROSTERS

A page from Rail Car Driver's Roster Book will look something like this.
NO 19 SET — 8.00 MOUNT GAMBIER
BOOK ON 7.48 a.m.
Take over cars in platform, prepared for departure (by Set 47) and work:-

Adel 8.00	281	12.20 Keith x
Adel 4.54	600	12.23 Keith

Relieved (by set 39)
BOOK OFF 5.06 p.m.

This shows that the rail cars leave the depot with one driver who has prepared them, and at the last moment, he hands them over to the main line driver who takes the train to Keith, changes over and brings back the motors which left Mount Gambier that morning. On arrival at Adelaide at 4.00 pm after a long day, the main line driver hands the train over to another driver to take back to Mile End, while he books off and goes home.

CARRIAGE AND RAIL CAR DIAGRAM

The details of the actual vehicles on the trains and on the rail car sets is shown in yet another compilation, of which there is a standing copy as well as daily amendments. My copy is dated 22.2.60. It shows the 7.08 Penfield was then run by Set 8 which consisted of 2 end-loaders, a Baggage car and 4 more end-loaders, and this train after waiting at Penfield all day returned as No. 658, in the afternoon peak, finishing at Adelaide at 4.50 p.m.

The Mount Gambier Blue Birds are shown in another document entitled:

COUNTRY RAIL CAR WORKING MONDAYS TO FRIDAYS NORMAL SERVICES FROM xx/xx/xx in which is found the following:-

281 8.00 a.m. Sth-East 250-100-250
Railcars 4.54p, ND

along with a number of other services to places like Victor Harbour, Peterborough and Port Pirie. And so you can see that it is possible to build up quite a detailed picture of the activities at Adelaide station if you are fortunate enough to have some of the bibliography, and I am quite sure that I have not listed ALL the documents.

MOUNT GAMBIER

A few days after my poetic observations from the Morphett Street bridge I was in Mount Gambier where, in the mornings, the Blue Lake arrives and the Blue Birds depart. Mount Gambier has two platforms (or perhaps you should say one platform and a dock), as against Adelaide's 13. Here, on most days, there is a Blue Bird leaving in the morning and another arriving in the evening, while a sleeping car train, known unofficially as the "Blue Lake", leaves at night three days a week, and arrives in the morning three days a week.

I was up early and had breakfast on the edge of one of the beautiful lakes before making my way to the station. It was a Saturday when the Blue Lake would not normally arrive, but this was a long weekend and the Blue Lake had made an extra departure from Adelaide the night before.

The Blue Birds which were due out at 8.10 had spent the night at the loco depot and had been driven out of the depot at about 7.30. Normally they would stand opposite the station building waiting for time, but to leave a platform clear for the Blue Lake, the Blue Birds were placed in the dock platform, in which there were already several bogie goods wagons. Slightly ahead of time, the Blue Lake came over from Mount Gambier Junction; a 900 class diesel, two sleeping cars, a sitter, a bogie van, and I think a louvre trailing, with the marker lights to show that the train was complete.

The sleeping car porters helped the passengers with their luggage, the overnight sitting passengers took care of their own, and the porters then crossed over to the

Blue Bird for the journey back, as passengers. The engine crew moved the train up so that the vans were opposite the station building, the cars were uncoupled and, after running forward, were set back into a siding. The engine ran forward again and waited in another siding to go back to the depot.

The real driver of the Blue Bird now arrived, looked at the train order telling him of a meeting with a goods train at Wandilo, an unattended staff station; he made sure he had the Mount Gambier — Mount Gambier Junction electric staff, the minutes ticked away and, at 8.10, the Blue Birds left.

The diesel drummed off to the depot and the station staff caught up on their clerical work while waiting for No. 547 Goods to come in from Wandilo. At Mount Gambier, in contrast to Adelaide, there seemed to be little in the way of paperwork for a number of things they had to do:

1. Provide a platform for the arrival of the extra Blue Lake
2. Alter the departure platform for the Blue Bird
3. Determine the consist of the Blue Bird
4. Move the Blue Bird from the "rail car depot", i.e., the loco depot, to the station
5. Dispose of the cars of the arriving train
6. Dispose of the engine

In fact, I have little doubt that the station master did most of it on the phone; "Hey, Charlie. There's an extra down pass (abbreviation for passenger train — Ed) in the morning. Put the Blue Birds in the dock and when the pass is unloaded leave the CD in the platform and put the other cars in 4."

"What's the consist?"

"Four and a van."

So then Charlie, the signalman, rings the loco depot to confirm that it will be OK to send the arriving engine over about 8.30. But when you come to think of it, all the constituent parts of the Adelaide Station are there; there's the passenger station — only two platforms to be sure, yet they can hold one train each. The passenger car yard is opposite the platform on No. 4 track. The loco depot is also the rail car depot. I would say that the only passenger cars in the passenger car yard are those that came in "this morning" and will go out "tonight". The only rail car in the depot is the set which came in "last night", and so no paper work is necessary.

In other words, the platform diagram, the engine roster, the carriage and rail motor diagrams are simple enough to be known by everyone concerned, and no need writing them down. Amendments to these verbal arrangements, as we have seen, can be made verbally.

And then, of course, there's Wingrove, but you won't find out where it is till next issue!

INDEX

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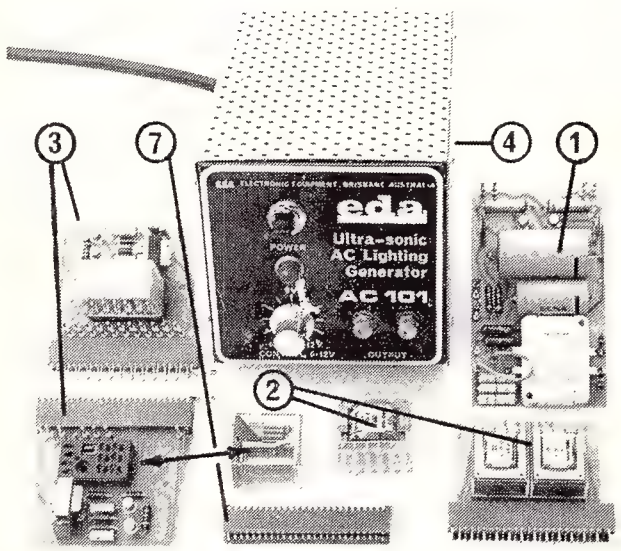

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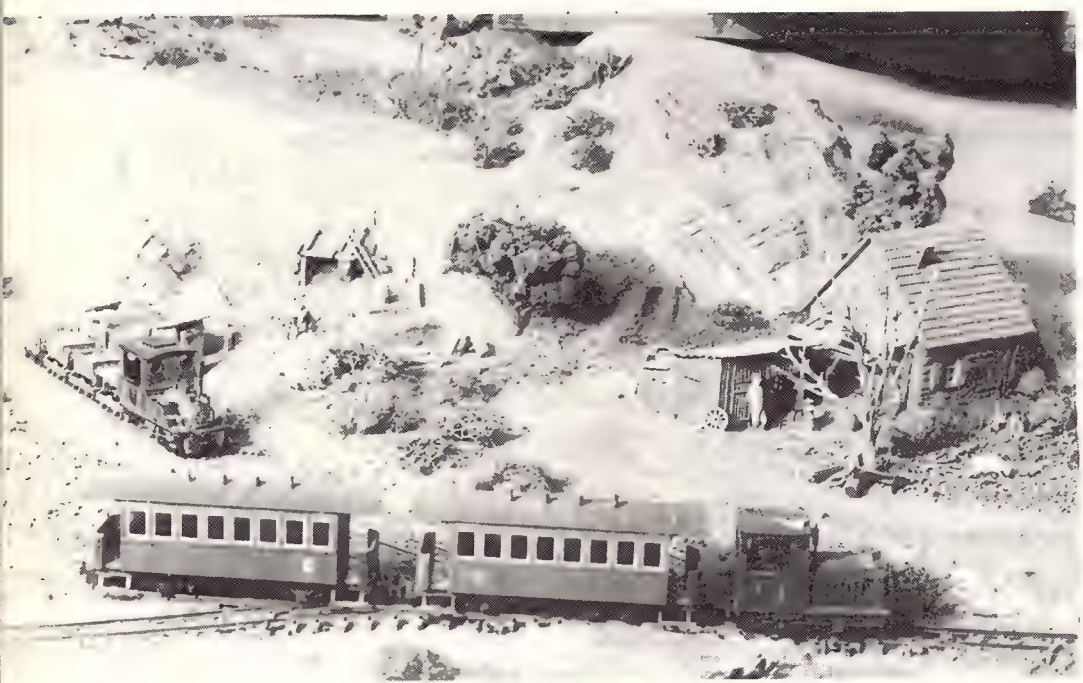
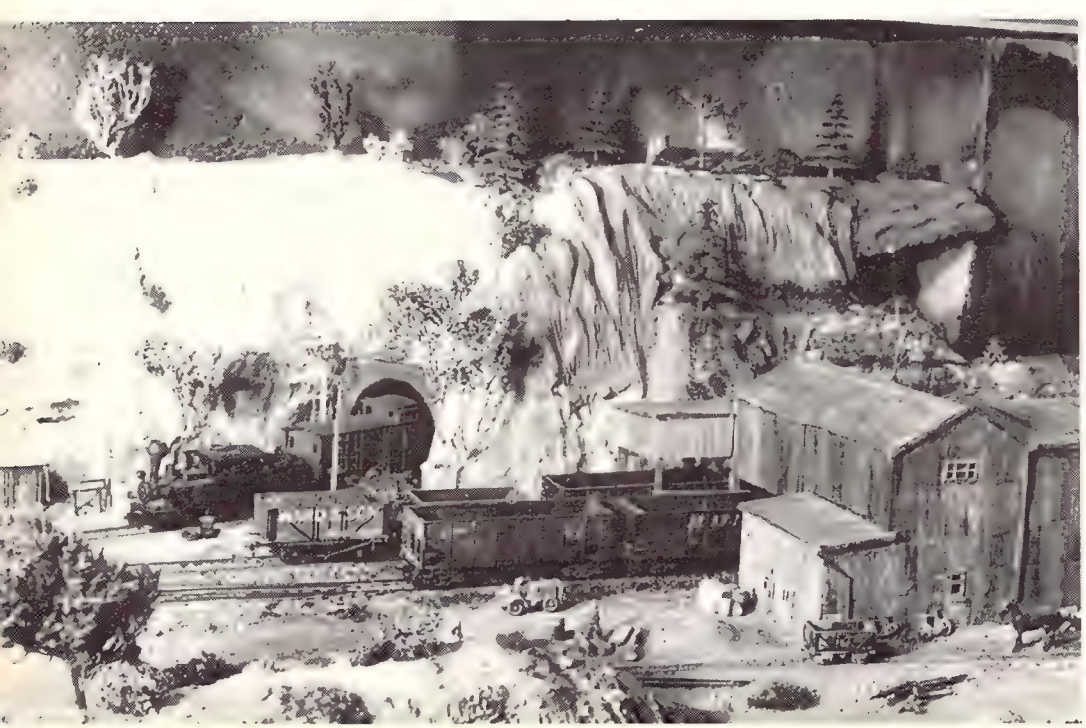
MELTON VALLEY...

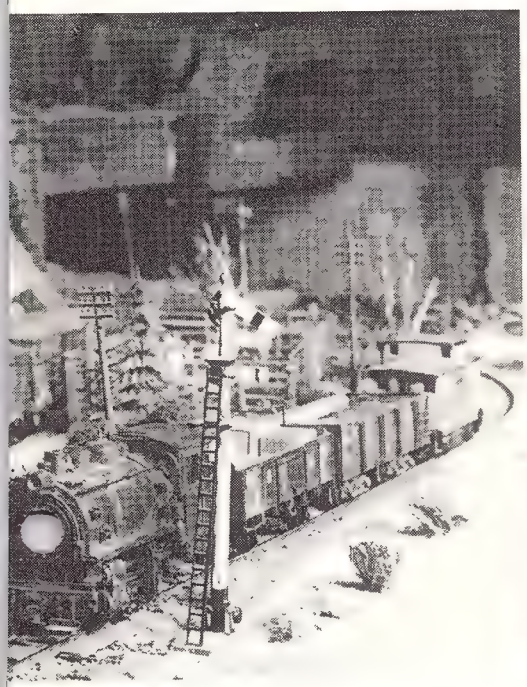


The Melton Valley Railway Company is owned and operated by Des McAuliffe, and was featured in an article in AMRM July/August 1967 issue. Since then Des has moved his address, and took the opportunity to rebuild the Melton Valley Railway. The concept is much the same; a run-down short line, whose main revenue stems from coal and ore traffic. Passengers are handled in mixed trains, and on a small narrow gauge feeder which is really a separate small portable layout. Visitors are always welcome, but some notice would be appreciated. The new address is 8 Spains Road, Salisbury, S.A. 5108.

1. Passengers on the narrow gauge ride in style behind the small diesel, but all goods working is handled by two small 0-4-0 steamers, one of which is shunting mine skips in the background.
2. An 0-4-0 saddle tank on a short goods passes the Melton signal box, while another 0-4-0 tank shunts a siding.
3. The small town of Glenchelle has seen better days, but is still served by a daily goods service, and any passengers may ride in the brake van, although a small rail car goes through town once each way daily. The goods yard curves away to the right and is some distance away from the town.

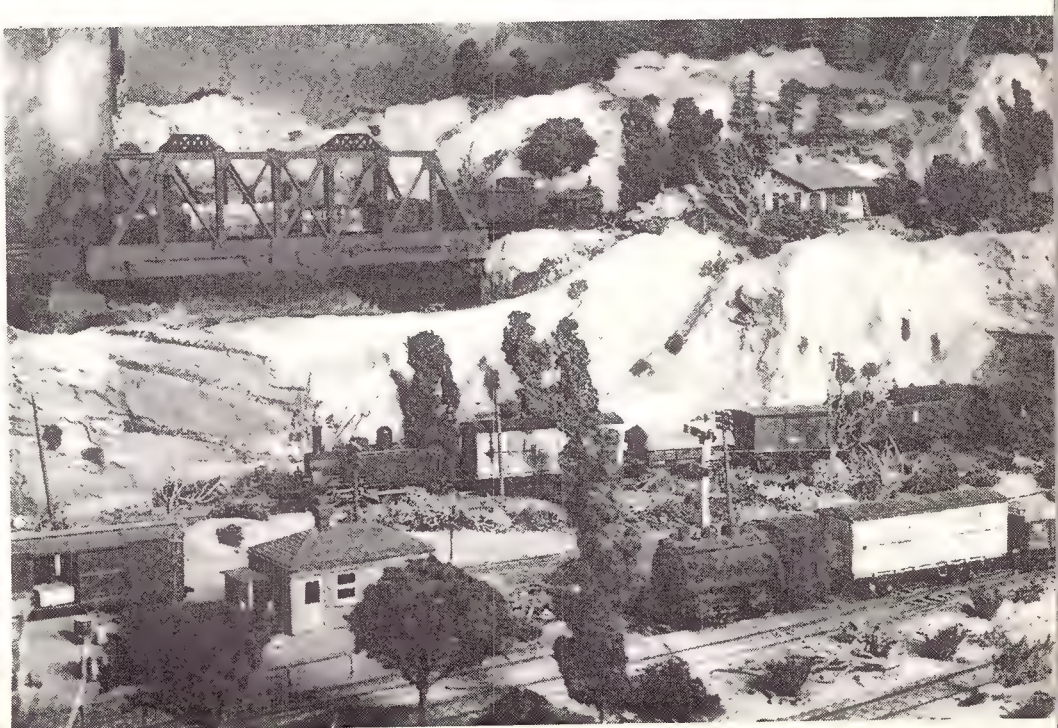


...REVISITED



4. Turon River coal sidings are one of Melton Valley's biggest customers, and the crew of the small steamer plus brake van begin their day's work by shunting the sidings for any loading offering. As there are four sidings at Turon River, all dead ends, the work can get quite complicated.
5. The morning mixed has just arrived at Melton, and the 0-6-0 tank takes water.
6. It is very rare to see so many trains at the one time on the Melton Valley, so some workings must be behind schedule, or the cameraman must have some influence with the Traffic Manager to pose this shot. The small steamer has just left Turon River and is crossing the river bridge on the way to another set of coal sidings. The 0-6-0 tank is pulling into Melton off the branch line, while the 0-4-0 saddle tank clears some wagons from a local siding.

Notes by Jim Thurmer



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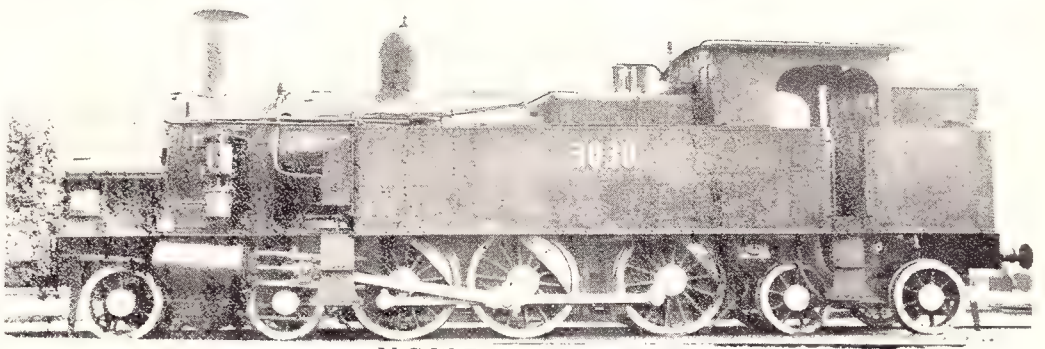

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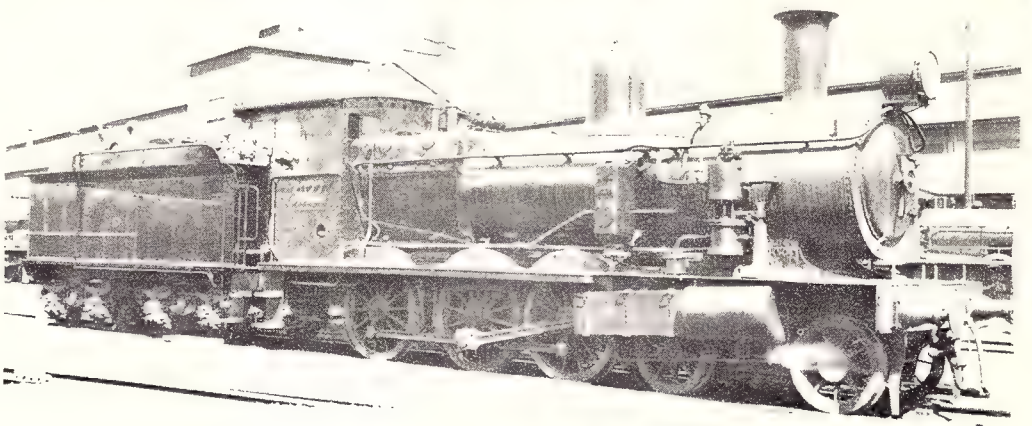

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BASIC ELECTRONICS Part 2

GEORGE GIRALDI

As we mentioned in the previous chapter the electrons of a good conductor are easily removed and conveyed. From which it naturally follows that you should also be able, after conveying, to store the electrons into something. This something is called a capacitor. The name refers of course to the main characteristic of it: having a certain capacitance. If the place of origin and that of storage of the electrons happen to be two separate surfaces, facing each other, that is what a capacitor will look like physically. If after the conveying of the electrons, we electrically separate, in other words we insulate, the two surfaces, the remaining gap will present a state of tension due to the fact that the first surface will have a number of atoms short of electrons, the second enriched with them. Said tension is called an electric field. The capacitance is strictly dependent to the areas of the surfaces facing each other, to the distance between them and the material in between, called the dielectric.

The most common commercial material used for said surfaces, called plates, is aluminium. For the dielectrics: air, paper, mica, plastics, and ceramics are commonly used.

Whenever there is an electric field between the plates, a capacitor is said to be charged and the tension of such charge is measured in volts. This voltage is dependent on the voltage used to set up the charge by applying an electric current in the first place.

If we connect a load across a charged capacitor we will cause a current to flow until the capacitor is discharged. If we charge the capacitor with a current of fixed voltage, said current will flow into the capacitor until fully charged and then stop at the voltage of the source. If we charge the capacitor with a current of a viable voltage, the current will vary accordingly.

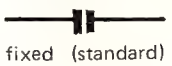
When this charge is made to vary at a rate of one volt per second, causing a current of one ampere to flow, the capacitor is said to have a capacitance of one FARAD. Unfortunately the farad is too big a unit for everyday work, so we use its submultiples: o.ooo.ool FARAD - 1 microfarad (uFormF) in jargon "mike".
o.ooo.ooo.ooo.ool FARAD = 1 picofarad (pFormmF) in jargon "puff".

Capacitors can physically be made of one or more pairs of plates (interleaved).

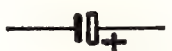
The dielectric's main characteristic resides in its insulation property and is given in volts on the capacitor body together with the capacitance, by the manufacturer. One particular kind of dielectric is the oxide (insulating) that aluminium forms, when immersed in special electrolite. This particular type of capacitor is called electrolytic and comes very handy when a big capacitance is needed in a small space. Unfortunately due to the very presence of such electrolite, like in batteries, this type of capacitor must be connected in a polarity dependant way.

If one set of plates is made to vary in position in respect to the other, you will have another special type: variable or semivariable: the trimmer —

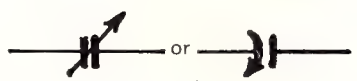
The electrical symbols for capacitors are:



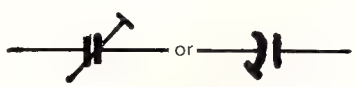
fixed (standard)



fixed electrolytic



variable



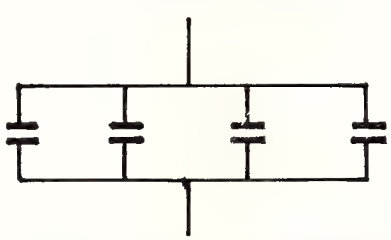
semivariable or trimmer

Like resistors, capacitors can also be connected in series or in parallel.

Unlike resistors though, capacitors in series diminish in capacitance, while in parallel they increase.

This does become apparent if you consider the following sketch:

= distance between plates increased, capacitance decreased.



= area of plates increased, capacitance increased.

The same formulae will still apply, though in reverse!
Series: C total = $1/c1 + 1/c_2 + ... 1/cn$
parallel: C total = $C_1 + C_2 + ... Cn$

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SUMMARY 1

Electrons form part of atoms.
Electrons are the smallest negative charges.
The nucleus has a positive charge.
Like charges repel, unlike charges attract.
Easily removable electrons are in conductors.
Difficultly removable electrons are in insulators.
A flow of electrons is an electric current.
The speed of a flow of electrons is measured in volts.
The volume of a flow of electrons is measured in amperes.
The power of a flow of electrons is measured in watts.
W = V.A.
The stored energy is called a potential or EMF (electro-motive-force)
The potential is also measured in volts.
Electrons move along conductors.
Conductors offer resistance.
Resistance is measured in ohms (Ω)
V = R.A.
Resistors can be fixed or variable.

$= R_1 + R_2 +$ Rm = Rtotal.

$= 1/R_1 + 1/R_2 + ... 1/Rm =$ 1/R total.

SUMMARY 2

Capacitors store electrons.
Capacitors have capacitance.
Surfaces facing each other form capacitors.
When capacitors are charged a tension between surfaces is created.
Such tension generates an electric field.
Capacitance depends on area and separation of surfaces and dielectric in between.
Capacitor's charge is measured in volts.
Changing variable voltage causes changing variable current.
1 farad = 1 ampere X 1 volt / 1 second.
0.000.001 farad = 1 microfarad (uF).
0.000.000.000.001 = 1 picofarad (uF).
0.000.001 microfarad = 1 picofarad
Capacitor's working insulation is given by manufacturers in volts/working (VW).
Electrolytic capacitors have fixed polarity, small size.
Capacitors can be fixed, semivariable, variable.

$= 1/C$ total $= 1/C1 + 1/C2$ 1/Cn

= C total = $C_1 + C_2 + ... C_n$

NO. 1 REPRINTS

The reprinting of issue no. 1 has now been completed. For your copy send 75c (50c if a member of SCMRA) to No. 1, SCR Publications, P.O. Box 204, Kings Cross, 2011.

CHOICE OF SCALE AND GAUGE

IAN CUTTER

One problem that confronts the modeller of Australian prototypes is that most of the railway systems in this country use "unstandard" gauge. One solution is to forget that the gauges are in fact different. This could perhaps be justified by reference to diesel locomotives, which are readily changed from one gauge to another, or by considering the later steam locomotives of the Victorian Railways, which were at least designed to be converted to standard gauge, even if this did not actually come to pass. While you might be able to get away with ignoring the difference between the standard and broad gauges this is about as far as you can go. The fact that the South Australian Railways ran T-class locomotives on both the narrow and broad gauges does not mean that there is really no difference between 3'6" and 5'3".

If, on the other hand, you are going to face up to the problem there are two possible ways of going about it. The first solution is to choose one of the accepted modelling scales and adapt the gauge to suit. The second is to select a particular gauge and modify the scale appropriately.

Consider now the first alternative, that of using an established scale. This has the great advantage of enabling the great range of commercially available scenic accessories to be used. In addition, many components for locomotives and rolling stock will be suitable; for example, the common standard-gauge wheel sizes of 3'1½" and 3'7½" were also widely used on 5'3" gauge stock. The disadvantage of this approach is that it may lead to odd sizes of axles and track gauge. Having chosen a scale it is necessary to find out what prototype gauge is represented by the various commericially available model tracks. This information is given in Table 1.

Down the left hand side is the scale, together with the corresponding ratio between prototype and model dimensions, and across the top are the gauges of commercially available model track. The body of the table contains the corresponding prototype gauge for each combination of track and scale.

Because this selection of scales and gauges may seem somewhat arbitrary some explanation is probably in order. Although N scale is nominally 2mm : 1ft., European models seem to be made to a scale of 1:160 whereas British manufacturers use a scale of 1:148. The scale of 3.8 mm to the foot is used by some manufacturers such as Trix and Fleischman, presumably in an effort to cater for both HO and OO markets simultaneously. The scale of 5.5 mm to the foot is used for the GEM models of narrow-gauge stock intended to run on 12 mm track. The ratio 1:50 corresponds to no particular modelling scale but is in keeping with the current change to metric units and is used for some Japanese plastic locomotive kits. The track gauges have been limited to those which are commercially available — this is whay S gauge (7/8") and 1 gauge (45 mm) have not been included.

The prototype gauges which have been listed range from 1'3½" to 7'1". This may seem a ridiculously large range, but the Ravenglass & Eskdale railway in Cumberland does operate on a gauge of 15", while at the other extreme Brunel's Great Western used a gauge of 7 feet. Even some of the intermediate figures may seem to bear little relationship to any reasonable prototype, but it is surprising to find what a wide variety of gauges are in common use.

One extensive industrial system in Ireland is built to 1'10" gauge, and many railways which are nominally 2'0" are actually 600 mm (1'11.5/8"). The gauge of the Talyllyn Railway in Wales is 2'3" and the neighbouring Glyn Valley Tramway was 2'4½". A gauge of 2'5½" (750 mm) is common in Europe, and 2'6½" (785 mm) can be found in Poland. Rack railways in Switzerland often use a gauge of 2'7½" (800 mm), 2'11" has been used for industrial systems, and 900 mm (2'11½") can be found in Germany. In Italy 95cm (3'1½") is quite common, and has spread to countries such as Eritrea and Libya which were formerly under Italian influence. The widespread metre gauge is 3'3.5/8", railways have been built in Jordan and Syria to a gauge of 3'5¼", 4'0" gauge track exists in Spain, 4'4½" has been used for tramways, and 4'6" has been used in Japan. Even more surprising than this wide variety of narrow-gauge trackage is the existence of various broad gauges in addition to the well-known 5'3" and 7'0". A gauge of 5'0" is common in eastern Europe and throughout the USSR, and in Argentina alone there is more than 10,000 miles of 5'6" gauge track. After that lot the figures in Table 1 don't seem so ridiculous after all.

A quick look at the table reveals that even the standard gauge does not always come out as accurately as it should, the only precise scale/gauge correlations occurring for N gauge at a scale of 1:160, TT gauge at 1/10" to the foot, and conventional HO. Two combinations not mentioned in the table, S scale and "P4", are also correct, and O gauge at a scale of 1:45 is close enough.

For 5'3" gauge the best scales appear to be 1:50 on 32mm track, or 1:152 on 10.5 mm track, although HO scale on 18 mm track is a convenient size.

In the case of 3'6" gauge the most practical combination is HO scale on 12 mm track. No combination corresponds precisely to 2'6" gauge, but again HO scale is the most suitable, this time on 9 mm track. A scale of 7 mm on 18 mm track would suit those who prefer larger models.

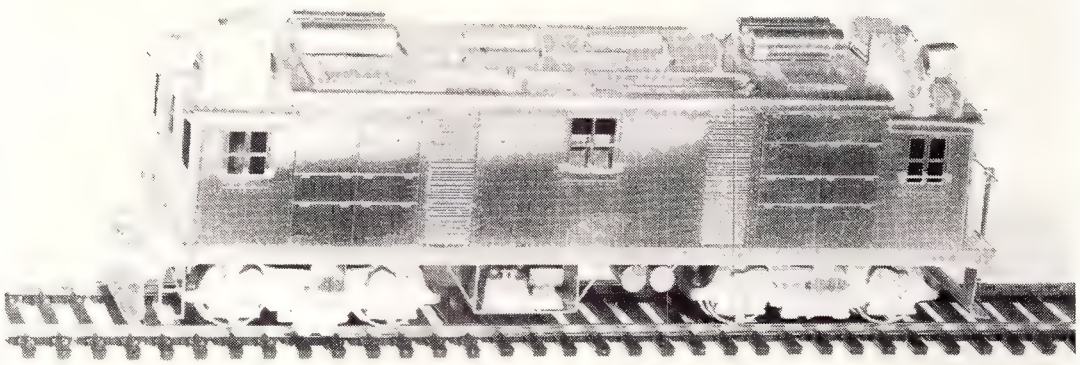
We can now turn to the second alternative, that of selecting a particular model gauge and making it correspond exactly to the required prototype gauge. This in itself is quite straightforward — merely select the two gauges, calculate the scale, and there you have it. What does require some calculation is the case of the dual-gauge layout, where two commercial model gauges are required to correspond to the two desired prototype gauges.

This situation is covered in Table 2, which has columns for five common model gauges. In the top third of the table the prototype gauge of 5'3" is put in turn equal to 12 mm, 16.5 mm, 18 mm, and 32 mm, and the prototype gauge which corresponds to the other model gauges will be found in

Scale foot		Ratio	Gauge of model track in mm.					
Inch	mm.		9	10.5	12	16.5	18	32
		160	4'8½	5'6				
	2	152	4'6	5'3				
		148	4'4½	5'1				
1/10		120	3'6½	4'1½	4'8½		7'1	
	3	102	3'0	3'6	4'0	5'6		
1/8		96	2'10	3'4	3'9½	5'2½		
	3.5	87	2'7	3'0	3'5	4'8½	5'1½	
	3.8	80	2'4½	2'9	3'2	4'4	4'9	
	4.0	76	2'3	2'7½	3'0	4'1½	4'6	
3/16		64	1'10½	2'2½	2'6	3'5½	3'9½	
	5.5	55	1'7½	1'11	2'2	3'0	3'3½	
		50	1'5½	1'8½	1'11½	2'8½	2'11½	5'3
1/4		48	1'5	1'8	1'10½	2'7	2'10	5'0½
17/64		45	1'4	1'6½	1'9	2'5½	2'8	4'9
	7	44	1'3½	1'6	1'8½	2'4	2'7	4'7

Table 1: Prototype gauges corresponding to various combinations of scale and track. (The "inches" signs have been omitted for clarity)

NEW FROM THE SHOPS OF KUMATA



HO N.Y.C. 'DES-3' Class Oil-electric Loco. Price: $69.95

Other News from "THE DOCKYARD". . . .

Scheduled for arrival ere publication of these notes, Katsumi's latest shipment includes the long awaited HO Rio Grande 4-6-6-4 Challengers, as well as the S.P. 'T-31' 4-6-0's, also in the Westside range. More HO Porter Moguls, Westside's HO W.P. Bay Window Caboose with Trucks and the HOn3 S.P. No's. 9 & 18 4-6-0's. Also included are the O scale Pennsy 'M-la' Class 4-8-2's. Scheduled for production next is Balboa's HO Santa Fe '900' 2-10-2's, along with Westside's HO Pennsy 'K-4' & 'K-5' Pacifics and 'M-la' 4-8-2's . . . Looking ahead, under the singing trolley wire, traction fans can soon expect stocks of Suydam's P.E. 1459 Stell Express and 1407 Steel R.P.O. Cars. To follow later will come the 1000 "Commodore" and 1465 Box Motor. Meantime, NWSL, noted for their fine brass locomotives, are working on something long needed by the HO trolley fraternity — the Brill Master Unit Car. A not unnatural development, when the Chief of NWSL, himself, owns a full sized Car of this type! Those interested in buying from our remaining stock of P.E. 'Blimps' should do so now. More are slated for production later in the year, after a lapse of many years, along with a re-run of 'Tens' — long out of stock. However, factory prices will be up at least 50% on previous buying levels for these models . . . From Tenshodo, we expect to have the re-run of G.N. 4-8-2 'P-2' Locomotives by the time these notes appear in print. Also more F-9 Diesel A & B Units in G.N., G.N. Big Sky Blue, S.P. Daylight and Santa Fe Passenger heralds . . . The HO white metal Green Bay & Western 2-6-0 Mogul Kit, currently being offered in the U.S.A. @ US$59.95, is now available from 'Dockyard and our various distributors at $30.00! A fine product for those prepared to settle for something less than a brass locomotive and who don't mind a little work . . . First stocks of Northwest Short Lines 12 Ton Climax were entirely pre-sold in the U.S.A. Accordingly, our stocks, in both HO & HOn3, must await a re-run to come later. Meantime, production in the future will include further gems for loggers working in HO and/or HOn3. In production now is the 15 Ton 'A' Class Tee-boiler Climax, in both HO and HOn3 and this will be followed by an 18 Ton 'A' Class Shay, to be available in both gauges. Stocks will be limited, but supplies have been guaranteed us out of the initial runs. Stocks of the 15 Ton Climax could be on the way by the time these notes appear in print . . . Talking of things for the slim gauger, the dearth of suitable HOn3 rolling stock kits is now being rapidly corrected: Tomalco have delivered their new Rio Grande 30' Box Car Kit @ $11.25 ea. Coming next will be the Rio Grande Short Reefer and Hi-Side Gondola Kits. 'Should be in by the time this issue appears. Coming will be a Rio Grande Idler Flat . . . Also in from the 'States are the first of a line of HOn3 custom built cars. Hand-crafted of wood, painted, decalled and fitted with underbody detail. Ready for trucks and couplers. Range comprises: S.P. 30' Stock Car, D. & R. G.W. 30' Reefer and 30' S.P. Box Car. All @$11.30 each . . . Those interested in Athearn and Train-Miniature HO Kits should send large stamped, S.A.E. with request for new Athearn and T-M Price Lists, covering new, large stocks, recently landed.

THE MODEL DOCKYARD PTY. LTD.

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the appropriate column in the same horizontal row. To take a specific example, if 16.5 mm is taken to correspond to 5'3", then it can be seen that 9 mm corresponds to a gauge of 2'10". The prototype-to-scale ratio, in this example 97:1, is given in the right hand column. The middle part of the table deals with standard gauge, and the bottom part with 3'6" gauge.

We can now look at the implications of this table for the modeller of the Australian railway scene. Considering first the Victorian Railways, the obvious requirement is for 5'3" and 2'6" gauges; the closest approach is to use a ratio of 1:89, in which case N gauge track comes out to be a scale 1½" too wide. An interesting alternative would be to model the broad gauge interchange at Yarra Junction with the 3'0" gauge Powelltown tramway; this can be done very neatly at a scale of 1:50. The South Australian modeller will be concerned with a narrow gauge of 3'6", and this can be easily managed with 18 mm and 12 mm track; moreover it is within a few percent of HO scale, so a large range of accessories will be available. For the ambitious person who desired a representation of Port Pirie Junction, HO scale, using track gauges of 18, 16.5, and 12 mm would be fairly close so long as no attempt was made to provide dual gauge track for the broad and standard gauges, where the undersize broad gauge could prove an embarassment.

The main requirement of the Queensland modeller, and also of those who like the west coast of Tasmania, is for 2'0" gauge track. The bottom part of Table 2 shows that if we take 16.5 mm for the 3'6" gauge then the 9 mm track is within an inch of 2'0". In addition, 9 mm track with narrow-gauge sleeper spacings is available from PECO, and the rail size is very close to scale. (If you are using ordinary N gauge track you can always cover up the sleepers, because on many narrow-gauge railways the sleepers are not at all obvious — on some of them it is difficult enough to find the rails at times.) A further benefit is that the normal N gauge wheels are equivalent to about 16" diameter in this scale, which is a reasonable size for narrow-gauge stock.

So there we are, and I hope these tabulations have been of some interest to modellers. My only reservation is that the inclusion of 10.5 and 18 mm tracks may have been a little ambitious, as supplies of such relatively unusual components depend on the continued interest of just one or two manufacturers.

	Gauge of model track in mm.					Ratio
	9	12	16.5	18	32	
Equivalent prototype	3'11½ 2'10 2'7½ 1'5½	5'3 3'10 3'6 1'11½	5'3 4'10 2'8½	5'3 2'11½	5'3	133 97 89 50
	3'6½ 2'7 2'4	4'8½ 3'5 3'2 1'9	4'8½ 4'4 2'5	5'1½ 4'8½ 2'8	4'8½	120 87 80 45
	3'6 2'7½ 1'11	4'8 3'6 2'6½ 2'4	4'9½ 3'6 3'2½	5'3 3'10 3'6 1'11½	3'6	119 89 65 59 33

Table 2: Prototype gauges corresponding to model track gauges.

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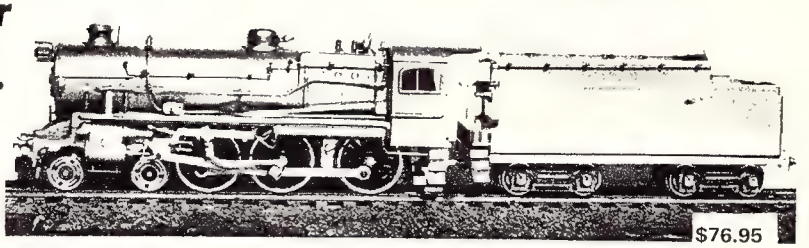

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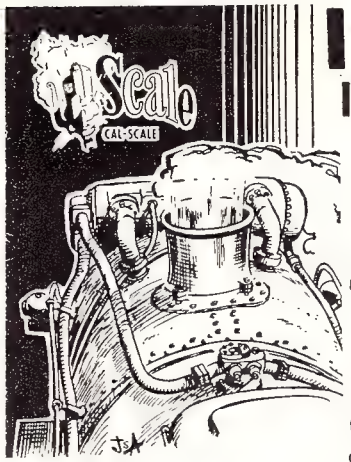

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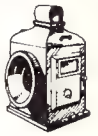
PYLE W/VISOR
HL-201 – 1·00



HEADLIGHT
Baldwin 011
HL-305 – 1·35

HEADLIGHT
SUNBEAM
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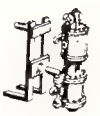
MARS LIGHT
TWIN LIGHT TYPE
W/BRKT.
HL-263 – 1·15



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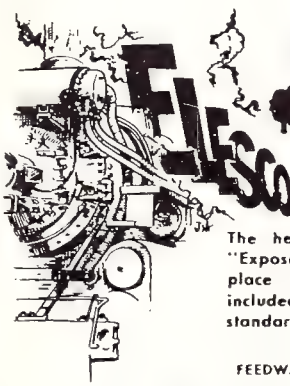

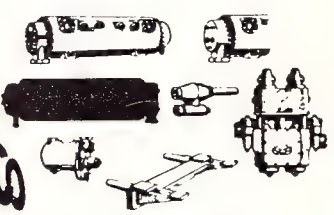

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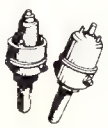

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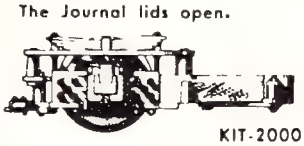

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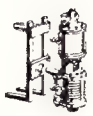

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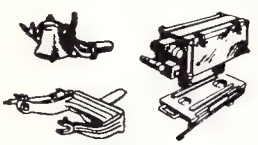

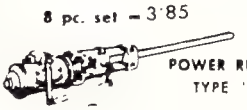

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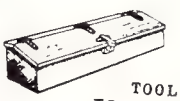

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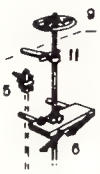

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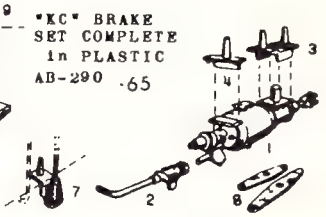

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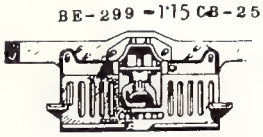

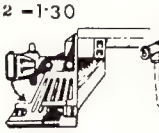

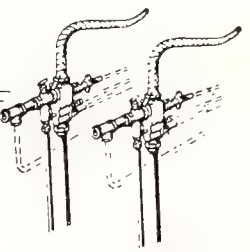

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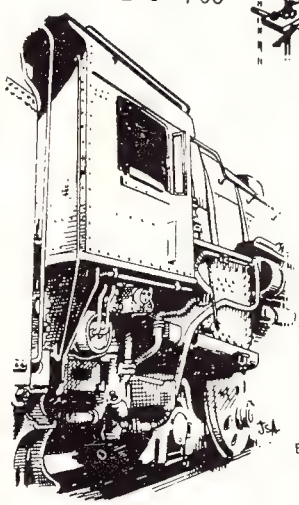

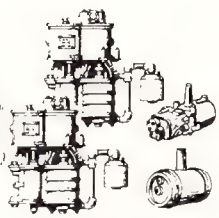

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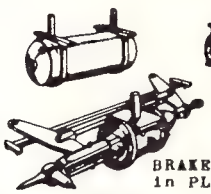

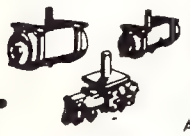

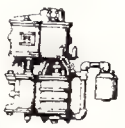

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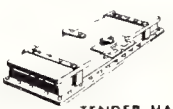

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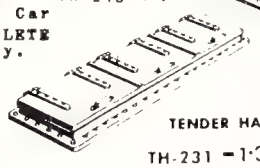

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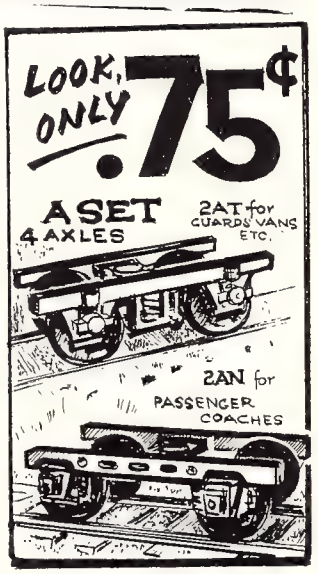

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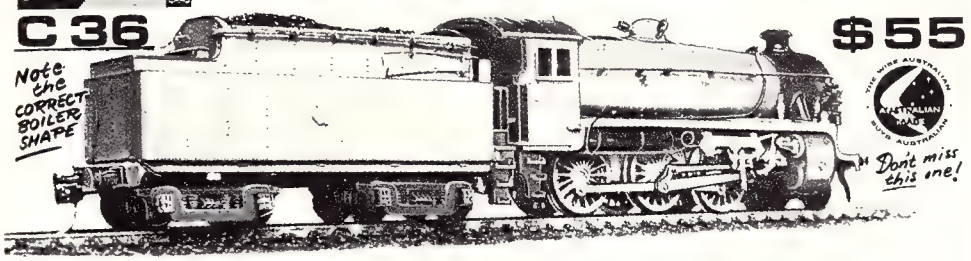

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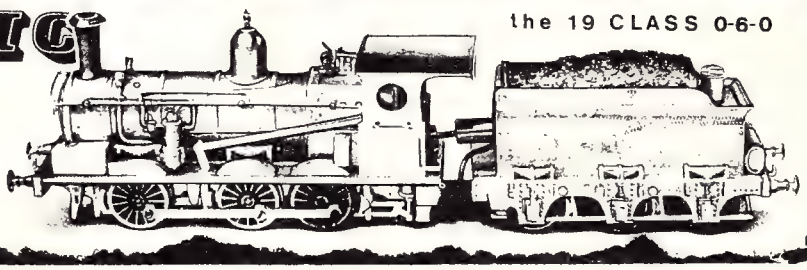

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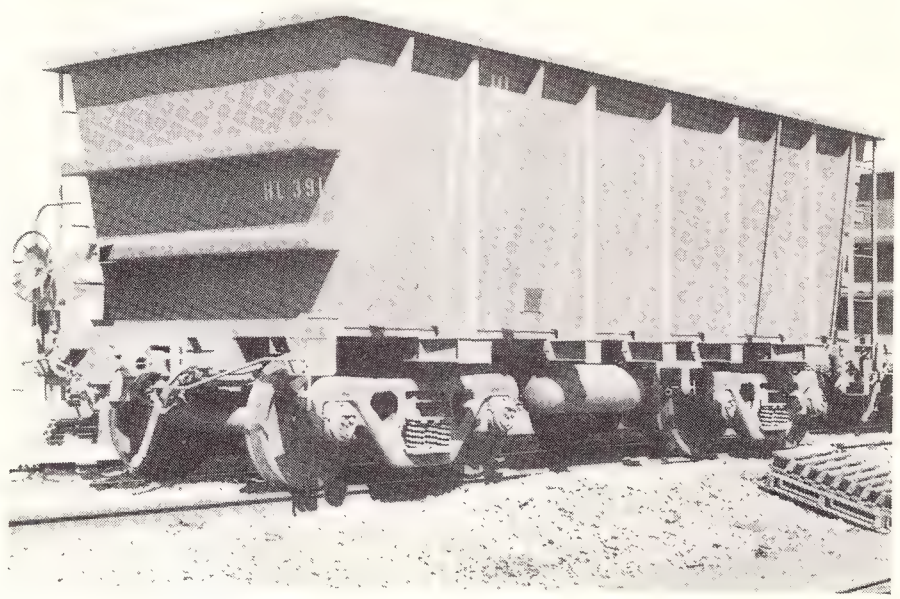
One of the most remarkable developments in modern-day Australian railroading, has been the appearance of the Western Australian iron ore roads. These specialised railroads have given Australians an insight into the operation of high capacity bulk unit trains with the ability to move the maximum amount of tonnage over a given distance within a given time, an operation while commonplace on the North American continent, has unfortunately been lacking in Australia owing to sheer physical size limitations and our legacy left from the British Colonial influence and the original gauge squabbles. Although, being fair to the Australian Government railway systems, the bulk traffic, as in the case of the W.A. ore roads being iron ore, has never been required to be moved in quantities suitable to this type of operation, and it has only been in the last 5 or 6 years that similar bulk unit trains, on a smaller scale, have come into operation on other Australian Government systems. The most notable examples being QGR's Morna shortline, Blackwater and Goonyella bulk coal hauls, and WAGR's own Koolyanobbing iron ore haul.

The two largest currently operating lines are Hamersley Iron and Mount Newman Mining, and will shortly be joined by a third the Cliffs Robe River Iron Australia, the latter of which is presently under construction. All these three are operated to the Association of American Railroads (AAR) standards, as practised in the USA, which renders some impressive operations. Train sizes of 164 cars exceeding 16,000 tons and hauled by 2750 and 3600hp US domestic model diesel locomotives, are commonplace everyday reality. These railroads are not common carriers and do not possess any normal general purpose freight vehicles other than those required for the company's own supply and work trains, which includes 40ft. flat cars, ballast hoppers, air-operated side-dump cars, diesel fuel 20,000-gall. tank cars, box cars and ammonia-nitrate covered hoppers for explosives.

By far the largest number of vehicles prevalent are the short, dumpy ore cars. ALL three roads will be operating similar cars, although details vary slightly between Companies. One of the most interesting is the type in service on Hamersley Iron (HI) of which there are now in excess of 1900 operating or on order. The original 288 cars came from the Japanese builders Nippon Sharyo and were patterned on the Southern Pacific Class G-1004 345000-series ore cars, which are operated over the Kaiser Steel Company's Eagle Mountain Railroad and SP's own tracks in California. Kaiser itself, had a 40% interest in the original HI float. These were 95-ton cars, and it was subsequently found that ore from Mount Tom Price mine was of less density than ore carried in SP ore cars, thus the second order for additional cars let to Commonwealth Engineering (Qold) had the design altered to allow for a 100-ton capacity.

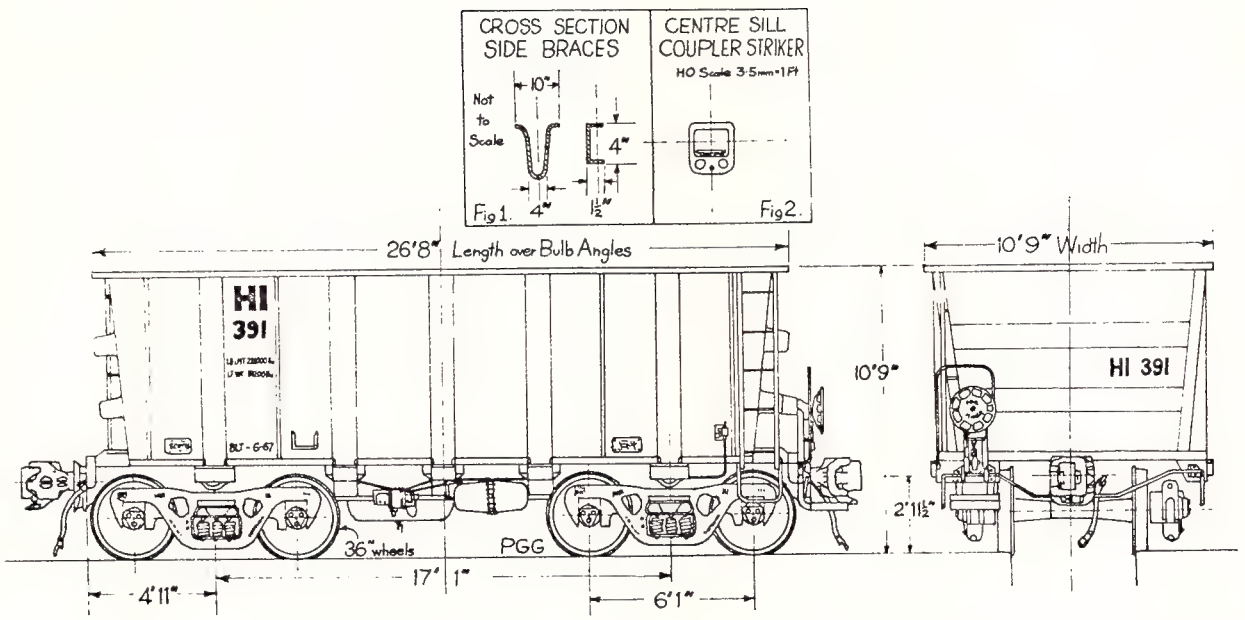
Additional orders went to Scotts of Ipswich Qld (A.E. Goodwin) and Com-Eng again, with more coming from Nippon Sharyo, Japan, all for the second series higher sided 100-ton cars. The cars are all equipped with AAR type "F" tightlock couplers, which are designed to prevent telescoping and also do not allow couplers to drop between tracks in the event of withdrawal from coupler pocket thus preventing derailments. A smaller version of these couplers are used on Australian interstate passenger cars. The bogies are 100 ton ASF ride-control fitted with 6½" x 12" Timken roller bearings. These bearings are larger than those fitted to Government Railway bogies. The latest series of cars have brake cylinders fitted integrally in the bogie bolster, a new development reducing the amount of brake rigging as incurred with body-mounted brake cylinders (an excuse for omitting this from models??). The original Japanese cars were fitted with safety appliances as per AAR practice such as, end ladders and side ladders at diagonally opposite corners and high mounted brake wheels. Subsequent orders dispensed with the end ladders as not required for local conditions (one ladder each side is ample for non-interchange service) and the brake wheel was lowered and coupled with a small shunters platform as per VR, SAR, CR practice. With the extension of Hamersley Iron's line 69 miles to Parraburdoo, new ore cars were ordered. These differ from the earlier cars in the fact that they will be equipped with rotary couplers to enable tipplers to dump contents of the cars with-out uncoupling individual cars. These cars will also be semi-permanently coupled in pairs with a solid drawbar between the two. (Could be a way to save on Kadee coupler costs?). Most of the additional cars ordered are known as 'slave' cars which are coupled with the solid drawbar to the earlier single cars, which become 'control' cars. Slave cars have the rotary coupler at the outer end which has that quarter end distinguished by yellow paint, and has no air brake reservoirs of its own, these being on the control car and piped through, in turn the control car has the normal fixed (non-rotary) coupler at the opposite outer

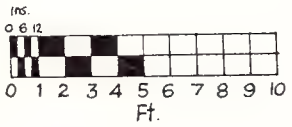


100 ton Hamersley Iron ore car at Dampier Yard, April, 1968. Note the AAR style brake wheel, the AAR Type 'F' tightlock auto- couplers and the massive auxilary air reservoir used in addition to the normal reservoir.

Underbody detail of H1 95-ton ore car. The bottom bracing is identical on all H1 ore cars including 95-ton, 100-ton standard versions and also the new Paraburdoo units. Photo taken at 2-mile Yard, Dampier, 1968.

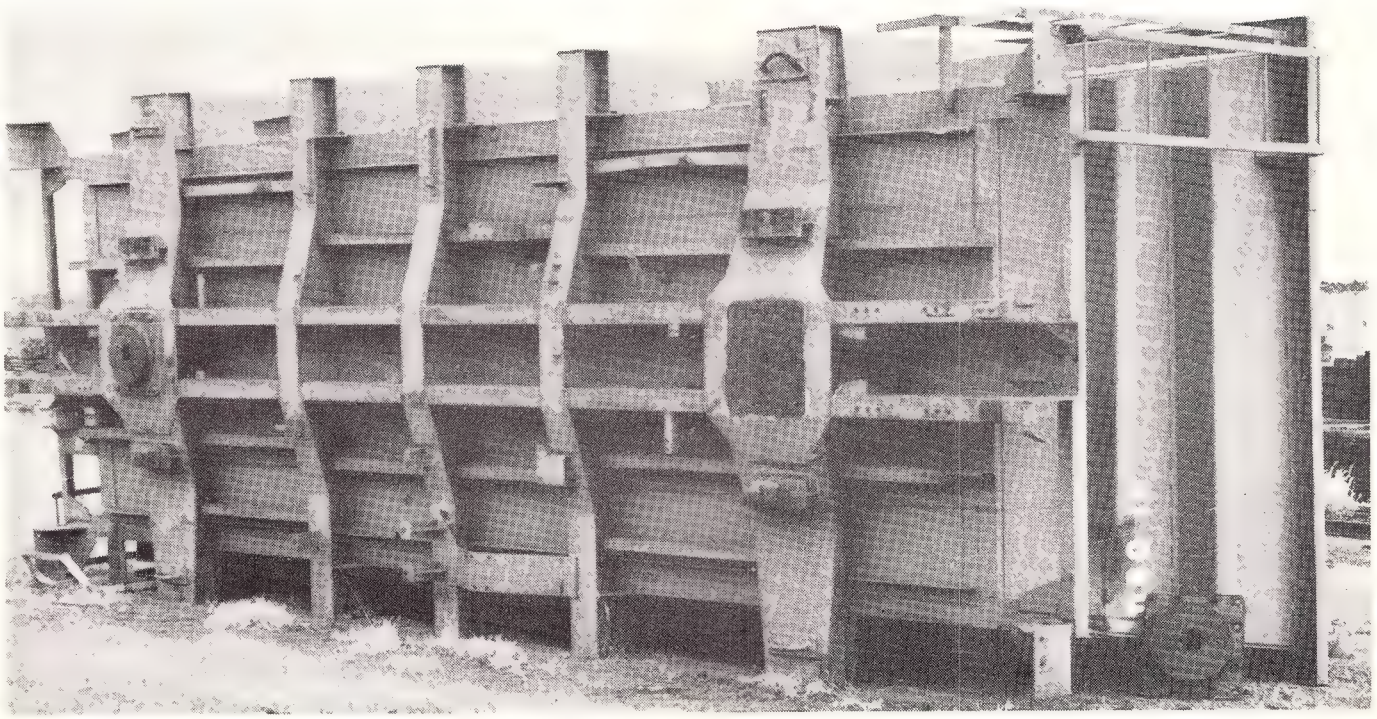
Joining the Southern Cross Model Railway Association? Then write for application form to:–
The Secretary, S.C.M.R.A., P.O. Box 107, Lakemba, 2195





HAMERSLEY IRON
100 ton Ore Car

Scale 3·5mm/1foot HO	
Drawn: PGG 10/71	



end. The dimensions are the same as for the earlier cars except all ladders are deleted except for one only on the far right side of the brake wheel end. 584 cars of the slave type have recently been built by National Steel Car of Hamilton, Ontario, Canada, and additional cars are being currently delivered by Industrial Engineering Steelweld Division, West Footscray, Vic.

Plan and photos by Philip G. Graham

Further information: can be obtained for the following sources:

Southern Pacific Ore Car —
"Car Builders 'Cyclopedia" 21st. Edition Simmons-Boardman Publishing Corp. USA 1961 P255
Hamersley Iron Article —
"Railway Transportation" January 1967 Vol. 16 No. 1
Hamersley Iron Revisited
"Australian Railway Enthusiast" September 1968 Vol. 6 No. 3 p4

Also recommended*

Building a QNS&L Ore Car* —
"Model Railroader" January 1964 Vol. 21 No. 1 P82

*While the dimensions of the QNS&L ore car differ from those of H1 units, the construction techniques are pertinent to the building of this type of car.

NUMBER SERIES HI ORE CARS
(As at March 1972)

001-288	1445 cub. ft. capacity 95-ton lower sides (Note 1)
289-390 392-406 408-443 445-473 475-716 718-869 871-948	1600 cub. ft. capacity 100-ton standard car. (Note 2)
1011-1063	Delivered as Control cars
5011-5951	Delivered as Slave cars

Note 1. 1445 cub. ft. cars remain as single units

Note 2. 289-948 are progressively being converted to control cars with modifications to brake gear and solid drawbars on inner ends.

391, 407, 444, 474, 717 and 870 have been converted to service stock. 75 cars, mostly in the 001-441 series have been written off owing to wreck damage. Cars in the 1001-1010, 1064-1073, 5001-5010 series and 10 random numbers from the 5522-5811 series are convertible ore/ballast cars with built up sides and bottom opening rotary doors and have a "B" suffix e.g. 1001B. There are no cars 949-1000, as this number series has been by-passed.

The author has number details of all the numerous HI service stock. If any reader is interested write to Philip G. Graham c/- A.M.R.M. P.O. Box 204, Kings Cross 2011.

club car

SOUTHERN CROSS MODEL RAILWAY ASSOCIATION

The association for individual thinking railway modellers. Members in all states and throughout the world.
Secretary: Bob Wickenden P.O. Box 107, Lakemba N.S.W. 2195.
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Contact your local representative for details of meetings.
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S.A.— John Trelease
7 Milton Ave
Fullarton
W.A.— John McCarthy
Lot 62 Slab Gully Rd
Roleystone
Ph 976466
Notes: Your 1972 membership fees are now due, please assist the Treasurer by paying quickly. Eastern Division members please note that John Bevan has resigned as Chairman. Rod Tonkin has replaced him until the election of a new chairman can take place. John has resigned to be able to concentrate on the production of this magazine.

Attention Railway modellers in the North Sydney, Mosman, Manly areas! Are you interested in joining a model railway club in your area? Contact P. Collis 18a Spencer Rd Mosman 2088.

BLUE MOUNTAINS RAILWAY SOCIETY
Address: P.O. Box 20, Glenbrook, NSW, 2773.

The BMRS holds a regular Running Day on their 5" gauge ground level Railway, located in Grahame Street, Blaxland, on the first Sunday of each month. Railway enthusiasts and members of other railway clubs are advised that visitors are welcome to attend these functions. Picnic facilities are available on the site.

Make it a railway day and travel by train to Blaxland station. Leave station on north side and walk east beside railway line along Wilson Way into Grahame Street — walking distance 1 mile. If travelling by car then travel 6.1 miles past Nepean bridge at Penrith, turn right into Haymet and Grahame Streets.

Further enquiries to Hon. Sec. at above address, phone (047) 39 2209.

CAIRNS AREA RAILWAY MODELLERS SOCIETY

The address of Mr. Bert Toogood, the president of the society, is:— Ambulance Centre, Babinda (not Salinida as noted previously), on Bruce Hwy., 40 miles south of Cairns.

AMRA (NSW)

The 10th Sydney Model Railway Exhibition will be held over the October Labour Day long weekend at the Sydney Lower Town Hall. Interested exhibitors are invited to submit applications to J. Dunn, 26 Napoleon Street, Rosebery, NSW, 2018.

ILLAWARRA MODEL RAILWAY ASSOCIATION

Meeting every Monday night in Wollongong Police Boy's Club.

Our annual general meeting was held on the 28th of February last. Election of officers was held with the result of President; Bob Positti, Vice President Ted Jones, Secretary Ron Bayley, Treasurer; Ken Bradbury, General Manager; Graham Spooner, (in charge of running the layout). A new position of Tours Manager was filled by Dick Demagged.

The past twelve months has seen a considerable change in club operations and increased enthusiasm by all members. We run a relatively large H.O. layout in the Police Boys Club at Wollongong. Modelling almost everything in H.O. from steam to electric, covering British, European, American and Australian. We are at present electrifying the layout (catenary) which is a mammoth task as major track alterations at junctions and extensions are involved. The addition of electric loco sheds and extra track are also involved.

In the past twelve months an official club letterhead was designed and printed in two tone blue from suggestions by club members. It depicts Railway track in perspective encircled by the boys club badge. The capital letter of Illawarra drawn as a rail cross section.

Home visits proved popular with running nights and topped off with slides and supper. Our organised bus trip to Parramatta Park steam Tram had to be called off unfortunately due to continual rain. Our next trip being a complete success, held on a Sunday afternoon. We hired a 48 class diesel and a consist of 4 F.O.'s and a VHO from Wollongong to Summit Tank for a barbeque outing and to view the spectacular scenery over Wollongong's south west. Weather was sunny going up the steep climb and members photographed from the rear platform of the last F.O. A hearty meal was had by all even if our Treasurer Ken didn't take the plastic off his meat before he cooked it.

We arrived back in Wollongong at about 8pm whilst still daylight. Our society will be now working in earnest for the annual model and hobbies exhibition in the Police Boy's Club on August 26 & 27 getting the layout to exhibition condition.

We hope this year to have more visits to members homes and a feature movie or two and a Melbourne trip in preparation in 1973.

hobby shop directory

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Not only do we sell but we also service what we sell (if and when required).
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Superquick—Kibri Vollmer
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12 words for 40 cents. Extra words 2 cents each. No charge to SCMRA members. Name, address and telephone number free. Advertiser number allotted and replies forwarded for 60 cents extra. Closing date: 20th of previous month (e.g. 20th of October for November/December issue).

COMMERCIAL

RAILMARKS New 3.5 mm Transfer sheet — N/G1 for N.S.W.R. Goods rolling stock. From your dealer or 90c plus postage from P.O. Box 188, Epping N.S.W. 2121.

FOR SALE

BRASS "50" Class loco, mint condition, spray painted, $100. Call after 5.30 pm. R. Mawson, 349 Kildare St., Doonside, NSW, 2767.

FOR SALE, Model Railroader, from January 1966 to April 1970 inclusive and Railway Modeller, from November 1961 to April 1972, except for 4 or 5 issues during 1962/1963. $60.00 or nearest offer. Paul Rogers, 23 Alice St., Queanbeyan, NSW, 2620.

LARGE assortment of second hand TT model railway equipment. Good condition rolling stock and track. Send S.A.E. for List to L. Forster, P.O. Box 86, Beaconsfield, N.S.W. 2015.

HORNBY 2/3 rail track, locomotives and accessories, many collectors items. Also repair locomotives. D. Neale, 5 Naree Rd., Frenchs Forest, NSW, 2086. Ph 4514363.

ONE BRASS 50 Class (painted) loco, excellent condition. Offers in writing to: J. Whitefield, 161 Market St., Tahmoor, NSW, 2573.

MODEL RAILWAY, terminal "L" shaped, 12'-9" x 6' x 2', 3 platforms, engine escape, goods yard, wharf and oil depot. Loco depot with electrically operated turntable. Shinohara track and electric points. Control panel with track diagram, scenery-complete. Best offer. J. Wilson 87 Paten St., Revesby, NSW, 2212.

HORNBY 1931 model gauge "0" electric. Engine, passenger and goods stock, track, points. Original, good condition, working. L.G. Brownless, 58 Carlisle Cres., Beecroft, NSW, Ph 843415.

N GAUGE German, mostly Arnold, 8 locos (one vary rare), 29 passenger, 23 goods vehicles, power unit-controller, 2 boards 6' x 3' and 5' x 3', track laid, some scenic work needed to complete. Whole valued $486.00, sell $325.00. No offers. Tel 6042777 or write P. Paxton, P.O. Box 213 Merrylands, NSW, 2162.

"O" GAUGE SALE All brand new items. Complete gear to build 200' English coarse track. "Leeds" GWR bogie coaches. Many Hornby waggons. Jap sprung waggon bogies and 6-wheel mechanism. 40 scale wheels, axles and axleguards. Tenshodo point motors and rectifiers. 32 hard-to-get panel switches and buttons, 6 controllers and miscellaneous bits and pieces. K. Clarke, 58 Wellesley St., South Hobart, Tas., 7000.

C32, BRASS, mint condition. Exchange only for Akane USRA 2-10-2 or USRA 4-8-2. Will consider 3-truck shay. Bill Cooper, 79 Agincourt Rd., Eastwood, NSW, 2122, Ph 888-1441.

LARGE SELECTION trains, new, second hand and soiled stock, all brands. New Hornby, Peco and Triang track, buildings, etc. Send SAE to Northern Rivers Modellers, P.O. Box 703, Lismore, NSW, 2478.

WANTED

AMRM Issues Nos. 4, Oct/Nov 63 — 5, Dec 63/Jan 64 — 13, Apr/May 65. J.B. Mackinnon, 58 Peachey Rd., Elizabeth West, S.A., 5113.

AMRM ISSUES Nos. 4 (Oct/Nov 63), 5 (Dec 63/Jan 64), 13 (Apr/May 65), J.B. Mackinnon, 58 Peachey Rd., Elizabeth West, S.A., 5113.

WILL BUY any model railroad equipment, rolling stock, etc., made by Ferris Bros., during 1940's and 1950's — any condition and price to G. Dempster, 14 Clontarf St., Port Augusta, S.A., 5700.

"OO" GAUGE WANTED G.W.R. items "1400", "4400" Praire kit, Schools kit and rare plastic waggon kits. Auto-coach (not K's) cast panniers or bodies. Hornby W.R. goods brake. L01 tender, No. plates, back-scene-sheets. Methfix or rub-on-lettering. K. Clarke, 58 Wellesley St., South Hobart, Tas., 7000.

AN invitation is extended to interested modellers to join a syndicate which will be placing an order with a kit manufacturer for a C35 class N.S.W.R. kit. For further details send S.A.E. to R. Gallagher, 52 Eyre St, Malabar 2036.

YARDMASTER

BULLETIN OF THE SYDNEY MODEL RAILWAY SOCIETY

4th floor
Railway Institute Building
273 Castlereagh Street, Sydney
(Opp. Mark Foys)

MEETINGS: Every Monday (holiday excepted) 7.30-9.30. Visitors welcome on 1st and 3rd Mondays of month; visitor parties must make prior application by letter.

NEW MEMBERS: Membership is now open for new members over 20 years of age for both O and HO sections. They must be actively involved in model railway construction and/or operation and attend regularly, and contribute their skills to building/repairing the Society's model equipment and manning the layout control boards for operational sessions. Apply by letter, or personally on a visitors' night.

OFFICIALS: President—Paul Simpson; Secretary—John Bowen; Vice-Presidents: O gauge, Don Stone; HO, Bob Gallagher.

O NEWS

Members are reminded that membership fees are now due and payable. Please see treasurer Ken Smith at any meeting.

Gil Silversides, who has been building a 36 class loco, brought it in for a test run recently. This engine is fitted with a very effective sound effect "chuffer" driven by one of the driving-wheel axles.

Ernie Stonyer has been in and brought with him a model of 3813.

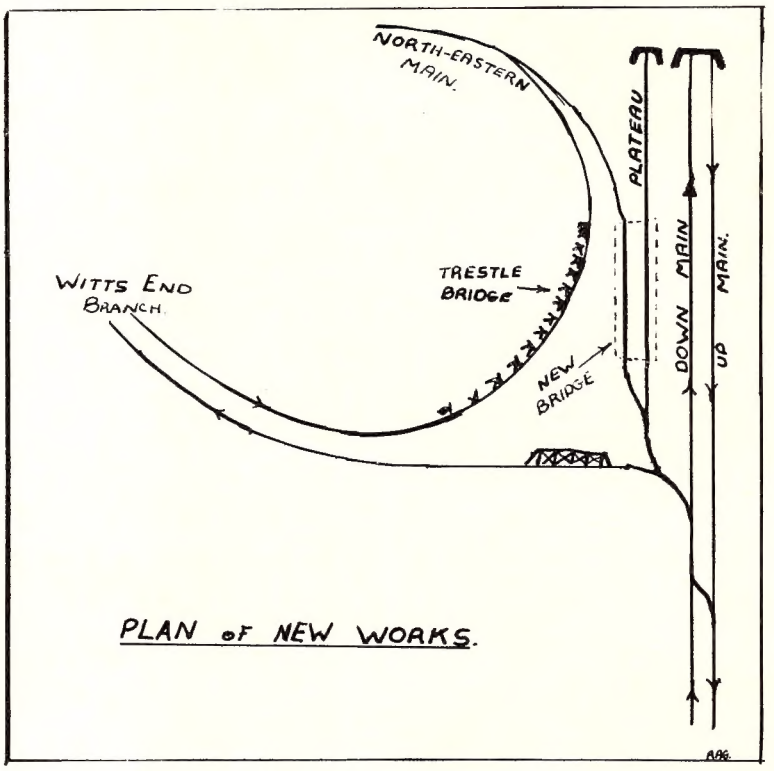
What were probably the best models to be seen in the club for a long time were provided by Jack Clifton. These were 48 class diesel-electric locomotive and a set of N type cars as modified for Brisbane Express working.

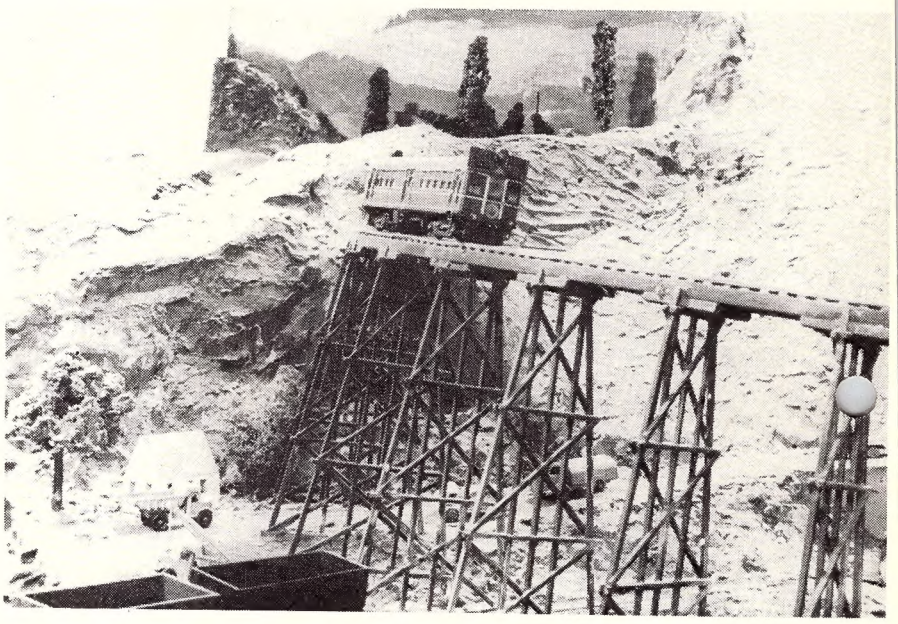
Ted Davies came up with an unusual item, this being a model of a 34 class locomotive. Ted is in the process of repainting it in the present day "Verdant green" livery. The photo this issue was taken on the "HO" layout and shows new member John Way's CPH No. 37 rail motor descending the high trestle on its way to Valley.

HO NEWS

A decision was made early in the New Year to organise a working bee to make the layout more efficient. The problems were brought about by the importing of C32 and D50 locomotives which were found to be lacking in pulling power on the grade to Plateau, even when extra weight was added to the locomotives. Consequently, the track to Plateau was removed, the bridge dismantled and the "Plateau Branch" point moved off the down main and installed on the "Witts End" branch line adjacent to the overbridge. The Plateau Branch then proceeds to Plateau entering the mountain via the old tunnel. The north-eastern line is junctioned to the Plateau Branch adjacent to the Witts End — Plateau Junction and the line runs across the Plateau Bridge and rejoins the North-eastern main. The points on the Up and Down Witts End Branch were spiked and a curved testle now carries the Up Witts End branch onto the North-eastern main via a curved point. Up trains from Witts End now run via the trestle (north-eastern main) and can be directed to Glenvale or the Up main to Central. The curved trestle and now double track overbridge give a good appearance to the valley for all lines run closer to the Valley-Plateau branch.

The work has taken about four months for trains now traverse the easy grades but thanks must be expressed to Chief Engineer and labourer Ken Smith with Signal Engineer and fettler Barry Milner and Civil Engineer and labour Arthur Wheatley who carried out all the work to relieve a major problem. Thanks boys — a good job well done. A track plan is included and members are reminded that the NSWR prototype running night is the first running Monday of the month.





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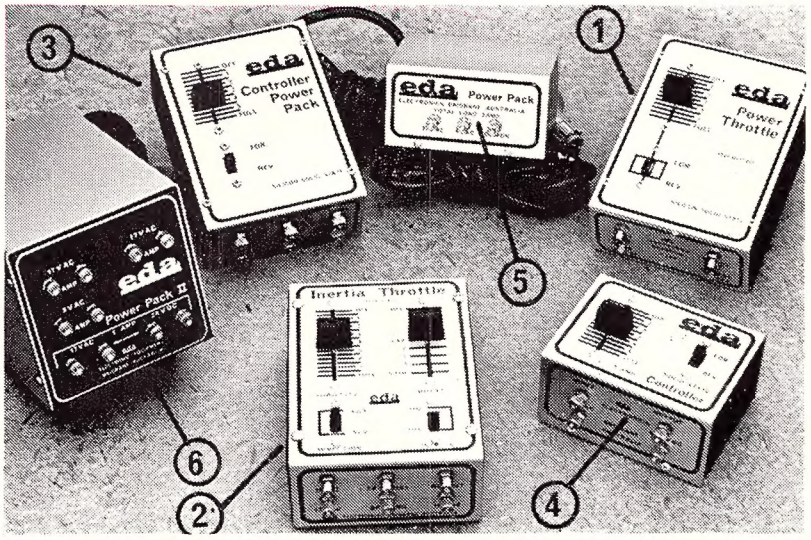

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1. (T_1) Power Throttle:— full 3 amp. pulsed control for the 0-gauge or HO Triple Header railroader. Input 17v. A.C. Reverse switch. Big Power. $22.98
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5. (P I) Power Pack I. Rugged 3 amp. power supply 17v. A.C. with tapping at 9v. A.C. for layout lighting, signals, etc. Overload cut-out, Good Value. $19.88
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This equipment is equally at home in any gauge and is ideal for N-gauge.

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A 6-core cable with appropriate plugs and sockets is available (not shown) to allow this revolutionary method of control to be implemented.

See your dealer for more information.

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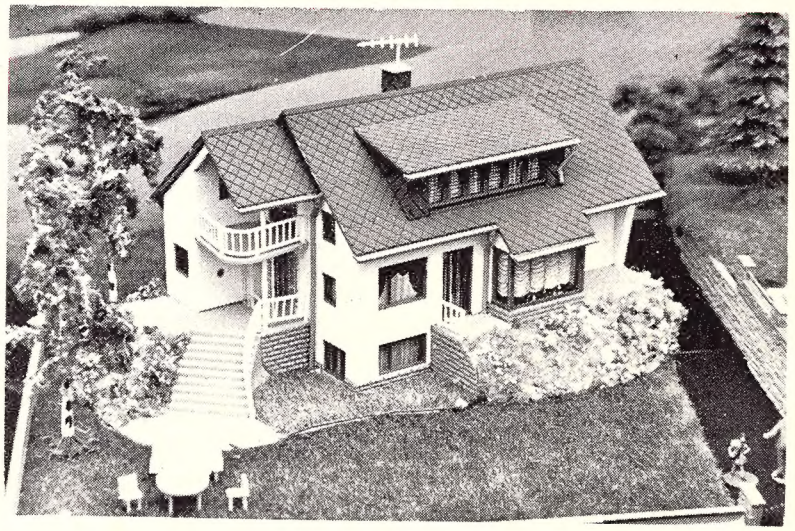

3711 HO/OO Two-storey House with white walls & grey roof, 7¾" x 4¾" x 3½" ... $3.95

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7718 N Gauge Country Style House with attic & balcony, white walls and red roof, 110 x 105 x 47mm ... $2.95

7715 N Gauge Modern Twin Level House with balcony, lower walls of stone & upper walls white stucco, 131 x 104 x 50mm ... $2.95

3600 HO/OO Old-style Station with red brick walls, canopy, platform etc., 9¼" x 6" x 5¼" ... $7.95

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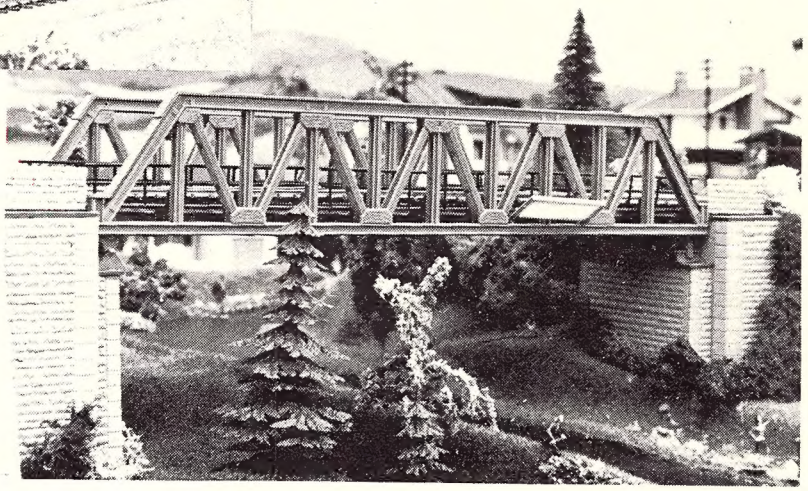
A STATION FROM THE N GAUGE RANGE –

7500 Modern Metropolitan Station with extensive glasswork on front, stagecoach motif etc. etc. 447 x 125 x 76mm ... $ 10.95



2505 HO/OO Truss Bridge with highly detailed grey girderwork, length 7½" $3.75

7800 N Gauge Truss Bridge similar to above, 6" long ... $2.15

OTHER BRIDGES –

7801 N Gauge Box Truss Bridge with grey girder work, 9" long ... $2.75

2510 HO/OO Curved Steel Truss Bridge ... $2.50

2511 HO/OO Straight Steel Truss Bridge ... $2.50

2530 HO/OO Bridge Pier – Centre Support ... $1.00

If your dealer is stumped, he is invited to, or you may, write to us for supplies.

AUSTRALIAN MODEL CRAFT CO.

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